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Product Market Regulation in Bulgaria:

A Comparison with OECD Countries

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Abstract

Less restrictive product market policies are crucial in promoting convergence to higher levels of GDP per capita. This paper benchmarks product market policies in Bulgaria to those of OECD countries by estimating OECD indicators of Product Market Regulation (PMR). The PMR indicators allow a comprehensive mapping of policies affecting competition in product markets. Comparison with OECD countries reveals that Bulgaria has made substantial progress towards less restrictive product market policies but also emphasizes a number of areas where further reform is needed. These include adoption of a regulatory process based on incentive-based rather than command-and-control approach, reduction of state interference in the decision of state-owned enterprises, further streamlining of business licensing procedures, and improvement in the communication of rules and procedures to affected parties.

This paper—a product of the Chief Economist Office of the Europe and Central Asia Region—is part of a larger effort to benchmark ECA countries against OECD countries in various dimensions of policy reform. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at silieva@worldbank.org.

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The team particularly wants to thank the OECD Economics Department, notably Paul Conway and Giuseppe Nicoletti, for sharing the PMR methodology and for their guidance in applying it. Detailed information about the PMR methodology is available, along with country specific data, at www.oecd.org/eco/pmr**.**

The data collection effort that underlies the present report took place in the spring of 2006. Particular thanks are due to the Ministry of Economy and Energy, and the Ministry of Finance who coordinated this initiative. We also gratefully acknowledge respondents from the following institutions for their diligent work in answering the detailed questionnaires: Ministry of Economy and Energy, Ministry of Transport, the Commission for Protection of Competition, and the State Agency for Information Technology and Communications. The team also benefited from the generous support of senior government officials from the Ministry of Labor and Social Policy who provided useful feedback.

The present report is a product of an initiative funded by the Chief Economist Office of the ECA region and initiated by Ali Mansoor (ECAVP) on benchmarking ECA countries with OECD ones.

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INTRODUCTION

On January 1 2007, Bulgaria became a member of the European Union. This achievement was in part made possible by a substantial reform effort, which has allowed Bulgaria to make impressive progress towards long-term stability and sustained growth over the past decade.

Nonetheless, the income gap with the new member states of the EU remains large, while competition is still burdened by overly restrictive product market policies. In order to sustain growth and improve competitiveness, a second generation of reforms has been launched to help the country's successful integration in EU and global markets. A cornerstone of this reform agenda is the implementation of less restrictive product market policies that enables firms to put resources - both capital and labor - to their most efficient use.

This paper presents a comparative analysis of Bulgaria's performance in product market regulation (PMR). The approach used relies on a methodology developed by the OECD (Conway, Janod and Nicoletti 2005), and the associated data, which are available for all OECD members and Brazil. Bulgaria, together with Romania (and now Ukraine), is one of the few non-OECD countries to have undertaken such a benchmarking exercise. Data for Bulgaria were collected following the same methodology in early 2006. Comparators include countries at similar levels of income and development, as well as high-income EU and OECD countries.

The paper is organized as follows. After a brief discussion of the PMR methodology, we present the result of benchmarking Bulgaria's product market policies to OECD countries and outline the areas where divergence from the average OECD levels or selected comparator groups is the largest. Although the PMR approach, and hence the paper, are really only diagnostic tools, we conclude by suggesting broad reform options.

Not unexpectedly, we find that overall product market policies in Bulgaria are generally more restrictive than among OECD countries, all of which are richer and with a longer tradition of reviewing their policy environment to make it more conducive to private sector development. Nevertheless, a number of interesting observations on the sources of Bulgaria's ranking emerge from the analysis. These can be summarized as follows:

- **Bulgaria in 2006 performs better than its peers in terms of outward-oriented policies (**meaning obstacles to international trade and foreign direct investment). Its policies in this domain are more liberal than those of peers such as other middle-income countries (Brazil, Mexico, and Turkey) and the pre-accession countries of Central and Eastern Europe.[1] In particular, substantial progress has been achieved in ensuring the equal treatment of foreign parties and in eliminating

[1] The data for the Czech Republic, Hungary, Poland and the Slovak republic is from 2003, so just prior to their joining the EU.

regulatory barriers to trade and investment. Until Bulgaria joined the EU, there remained an agenda around barriers to foreign investment in specific sectors and tariff levels, which in early 2006 were still higher in Bulgaria than in the EU, albeit lower than in non-EU middle-income countries. These were brought to the EU level in January 2007.

- **Bulgaria is most restrictive in inward-oriented policies** – meaning policies concerned with the degree of state control of the economy and with barriers to entrepreneurship. This is due to a combination of factors:
    - State control over the economy is still significant. The size of the public enterprise sector and the extent to which the state controls strategic decisions of public enterprises are still somewhat higher than among comparator countries. In addition, although price controls have been substantially reduced during the first generation of reforms, incentive-based regulation is still not the norm.
    - Barriers to entrepreneurship need to be further reduced, although they are not too distant from benchmark groups. Actions could include: lifting barriers to entry in network and utilities sectors; further streamlining the licenses and permits system (notably by introducing the 'silence is consent' rule); simplifying rules and procedures; and alleviating administrative burdens on startups by simplifying the incorporation of new firms and further liberalizing entry in regulated service sectors, such as road freight and retail distribution.

It should be noted that these comparisons are between Bulgaria in 2006 and comparators in 2003. However, past experience shows that countries can change very rapidly in terms of product market policies and it is known that a number of countries have been reforming rapidly in recent years. A repeat of the benchmarking exercise for Bulgaria in the next couple of years (for example, in the context of a planned new roll-out of the PMR in 2007) would permit a more exact comparison while allowing for a review of progress achieved in deregulating the economy since Bulgaria's entry to the EU and identify potential areas for adjustment.

We now turn to a presentation of the PMR methodology and a discussion of the choice of benchmarks, before presenting the results of the benchmarking exercise.

THE PMR METHODOLOGY

A regulatory environment propitious to competition in product markets is widely believed to have positive repercussions on long run economic performance (Nicoletti and Scarpetta 2003) and productivity convergence (Conway et al. 2006 and 2007). This may occur by promoting a more efficient allocation of resources both across and within sectors (Nickel 1996). A more competitive environment may also stimulate innovation and technological diffusion, thus enhancing dynamic efficiency (Aghion et al. 2001).

Product market regulation (PMR) is measurable through a methodology developed at the OECD relying on the OECD regulatory indicators questionnaire. The methodology and key findings of the PMR for OECD countries are presented in Nicoletti et al. (1999) and Conway et al. (2005). The PMR indicators summarize information on economy-wide and industry-specific regulatory provisions.

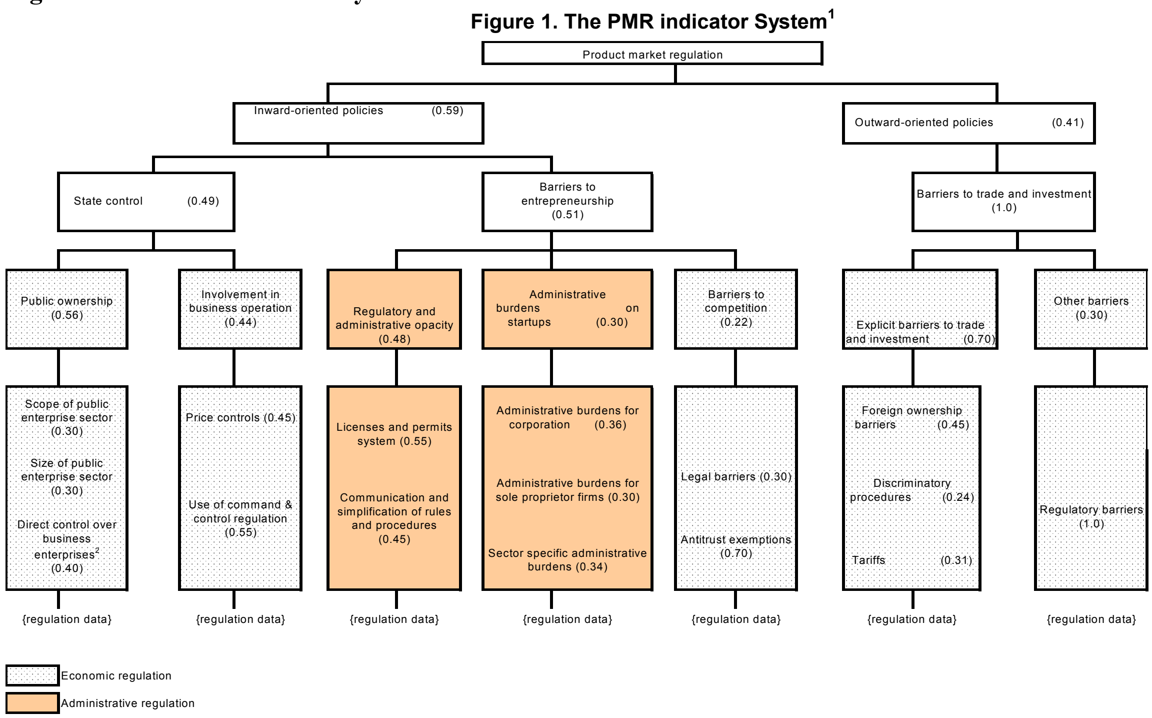
The PMR indicators are designed to reflect regulations that have the **potential to restrict competition** in areas where competition is viable. By construction, they have a number of features which make them useful not only for analysis, but, more importantly, for policy advice, since they allow to pinpoint specific policies that hamper competition in product markets. First, PMR indicators are focused on enacted **policies** and not on outcomes, implying that they are '**objective**', in that they are not based on opinion surveys. Second, since the summary PMR indicator is constructed as the average of well defined components, PMR scores can be related to **specific underlying policies**, thus providing precise inputs in the phase of policy recommendation. Finally, PMR indicators focus on regulatory measures that affect the economy at large and can therefore be considered as **comprehensive** measures of regulatory restrictiveness. Their advantages notwithstanding, PMR indicators are not designed to capture **informal** regulatory practices nor the effective **enforcement** of regulations, since they are only concerned with formal compliance with a number of criteria.

Data were collected for Bulgaria for the purpose of the present exercise, covering four of the six "sections" of the OECD product market regulation database.[2] The first section deals with general regulatory policy issues, concerning public ownership; market access and competition issues; market structure and vertical relationships in utilities and other network industries. The second section covers regulatory and administrative policies, such as processes and capacities in the public administration. The third section covers regulation in transportation industries, focusing on market access, business conduct, and market structure in road freight, railways and passenger air travel. The final section covers regulation in retail distribution, focusing on the regulatory environment, industry behavior and prices. Information from Doing Business 2006 was used for a fifth section of the PMR - administrative burdens on startups.

The structure of the PMR system is shown in Figure 1. The system is composed of 16 basic or 'low-level' indicators, each capturing a specific aspect of the regulatory regime as described in Box 1. The basic indicators are progressively aggregated in more comprehensive policy areas. The highest level of aggregation corresponds to the summary measure of product market regulation in the country.

[2] The OECD questionnaire adapted for Bulgaria is provided in the Annex. For a comprehensive reference see www.oecd.org/eco/pmr.

Figure 1 The PMR indicator system



1.The numbers in brackets indicate the weight given to each lower level indicator in the calculation of the higher level indicator immediately above it. The weights were derived by applying principal components analysis to the set of indicators in each of the main regulatory domains (state control, barriers to entrepreneurship, barriers to trade and investment, economic regulation and administrative regulation). The same approach was used to derive the weights used to calculate the indicators of inward and outward-oriented policies and the overall PMR indicator. The principal components analysis was based on the original 1998 data.

2. Two indicators from the 1998 version of the PMR indicators ('Special voting rights' and 'Control of public enterprise by legislative bodies') have been combined into this indicator.

Source: Conway et al. (2005)

Box 1. The low-level PMR indicators

There are 16 low-level indicators in the PMR system. These indicators cover a wide range of product market policies and include:

INWARD-ORIENTED POLICIES

State control: Public ownership

Scope of public enterprises: this indicator measures the pervasiveness of state ownership across business sectors as the proportion of sectors in which the state has an equity stake in at least one firm.

Size of public enterprise: reflects the overall size of state-owned enterprises relative to the size of the economy.

Direct control over business enterprises: measures the existence of government special voting rights in privately-owned firms, constraints on the sale of state-owned equity stakes, and the extent to which legislative bodies control the strategic choices of public enterprises.

State control: Involvement in business operations

Price controls: reflects the extent of price controls in specific sectors.

Use of command and control regulation: indicates the extent to which government uses coercive (as opposed to incentive-based) regulation in general and in specific service sectors.

Barriers to entrepreneurship: Regulatory and administrative opacity

Licenses and permits systems: reflects the use of 'one-stop shops' and 'silence is consent' rules for getting information on and issuing licenses and permits.

Communication and simplification of rules and procedures: reflects aspects of government's communication strategy and efforts to reduce and simplify the administrative burden of interacting with government.

Barriers to entrepreneurship: Administrative burden on corporations

Administrative burdens for corporations: measures the administrative burdens on the creation of corporations.[3]

Administrative burdens for sole proprietors: measures the administrative burdens on the creation of sole proprietor firms.[4]

Sector-specific administrative burdens: reflects administrative burdens in the road transport and retail distribution sectors.

OUTWARD-ORIENTED POLICIES

Barriers to entrepreneurship: Barriers to competition

Legal barriers: measures the scope of explicit legal limitations on the number of competitors allowed in a wide range of business sectors.

Antitrust exemptions: measures the scope of exemptions to competition law for public enterprises.

Barriers to trade and investment: Explicit barriers

Tariffs: calculated as the (simple) average of most-favoured-nation tariffs.

Foreign Ownership barriers: reflects legal restrictions on foreign acquisition of equity in public and private firms and in the telecommunications and airlines sectors.

Discriminatory procedures: reflects the extent of discrimination against foreign firms at the procedural level.

Barriers to trade and investment: Regulatory barriers

Regulatory barriers: reflects other barriers to international trade (*e.g.* international harmonisation, mutual recognition agreements).

Source: reproduced from Conway, Janod and Nicoletti, 2005

The indicators are calculated on the basis of the qualitative and quantitative information obtained from questionnaire answers. Qualitative data are assigned a numerical value that allows ordering each of the possible responses to a given question. Quantitative information is ranked by subdividing it into categories based on a system of thresholds. The coded information is then normalized over a scale of zero to six. These data are then

[3] Data from Doing Business in 2005 was used to construct this indicator.
[4] This indicator is not available for Bulgaria as information about it was not included in the adapted questionnaire for Bulgaria.

aggregated into basic or 'low-level' indicators by assigning subjective weights to the various regulatory requirements. Given the normalization of the basic data, all the low-level indicators also have a scale of zero to six, reflecting increasing restrictiveness of regulatory areas.[5]

Basic indicators are then aggregated into broader regulatory domains. Higher-level indicators are calculated as weighted averages of their constituent lower-level indicators. The attribution of lower-level indicators to each higher-level indicator, and the weights used in the aggregation, are based on principal component analysis (Nicoletti et al., 1999). At the highest level of aggregation the overall indicator of product market regulation summarizes the restrictiveness of the regulatory framework in the product market. The structure of the PMR system, with progressive levels of aggregation, has the advantage of allowing a decomposition of higher-level indicators, with an increasing degree of detail, into the values of the more disaggregated indicators, each corresponding to specific regulatory provisions.

Data refer to the beginning of 2006 for Bulgaria and Romania, to end-2003 for OECD countries and 2004 for Brazil.

As to benchmarks, the most obvious ones for Bulgaria are Romania, for which estimation of PMR indicators has been carried out in parallel with Bulgaria and refers to 2006, and the countries of Central and Eastern Europe that are also OECD members: these include Czech Republic, Hungary, Poland and the Slovak Republic and we refer to them as the OECD CEE. The fact that the data for the OECD CEE are from 2003, when these countries were at about the same point as Bulgaria in 2006 relative to their accession to the EU, makes them interesting benchmarks. Nevertheless, when assessing Bulgaria's relative performance, it should be kept in mind that the OECD CEE countries have made further substantial progress in various areas of product market regulation since EU accession in 2004.

Extension of the benchmarking exercise to Brazil, Mexico and Turkey offers a broader perspective on other middle income countries (MICs) with different historical experiences. Finally, comparison with the OECD or high income EU15 countries helps identify longer term objectives for policymakers.[6]

These benchmarks are used in the graphs. However, Bulgaria's score relative to the full sample of countries (30 OECD members plus Brazil) is shown in Appendix I for all PMR indicators.

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[5] The calculation of low-level indicators, including the weights used, is based on Conway et al. (2005).

[6] EU15 countries are Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom.

BENCHMARKING PRODUCT MARKET POLICIES IN BULGARIA

In the aftermath of the 1996-1997 crisis Bulgaria pursued an ambitious reform effort, stimulated by the prospect of EU accession. Macroeconomic stability was established as a result of prudent fiscal and income policies centered on a Currency Board Arrangement. Fiscal consolidation reduced the overall fiscal deficit from 15.2 percent of GDP in 1996 to a balanced budget in 2003 and fiscal surpluses thereafter while public debt level declined from over 100 percent of GDP in 1997 to currently 27 percent. As a result of these policies and deep structural reforms, average growth reached about 5 percent per year in 2000-05 (and is estimated at close to 6.5 percent in 2006) and inflation has declined to single digits from hyperinflation levels. Unemployment also declined from 18 percent in 2000 to 8 percent currently.

Solid macroeconomic performance supported by accelerated structural reforms improved the environment for doing business in Bulgaria. The private sector's share in the economy increased substantially and is now comparable to, and in some cases even higher, than among other EU new member states (NMS). Domestic investment surged to close to 30 percent of GDP in 2006 compared to less than 10 percent in 1996-1997 while foreign direct investment has averaged 13 percent over the last four years. Beginning in 1998, most of the non-infrastructure enterprises and banks were privatized or liquidated, banking restructuring was completed and banking supervision strengthened; trade and prices were liberalized; reforms in the energy sectors were implemented in both the district heating and electricity sectors; major public sector and institutional reforms have been implemented. Steps were also taken to reform the regulatory framework. Nevertheless, important aspects of the regulatory environment still need to be improved, both in terms of the quality of the rules and regulations, and of their efficient enforcement.

A crucial element of the second generation of reforms to be pursued by Bulgaria is the implementation of less restrictive product market policies, which will encourage a more efficient allocation of resources and improve labor productivity. This is especially important for Bulgaria given the significant income and productivity gaps the country has with other EU members: Bulgaria joined the EU with an estimated per capita income level of about 35% of the average for EU25, the lowest among the new member states.[7] In addition, employment and participation rates, albeit improving substantially recently, remain among the lowest in the EU.

Enhancing competition in product markets has been found to help increase GDP per capita by providing incentives to firms to reallocate resources to more productive activities, increase innovation and technological diffusion. In addition, less restrictive regulations may positively affect employment by reducing the rents that some firms extract from overregulation and force firms to expand their activities.[8]

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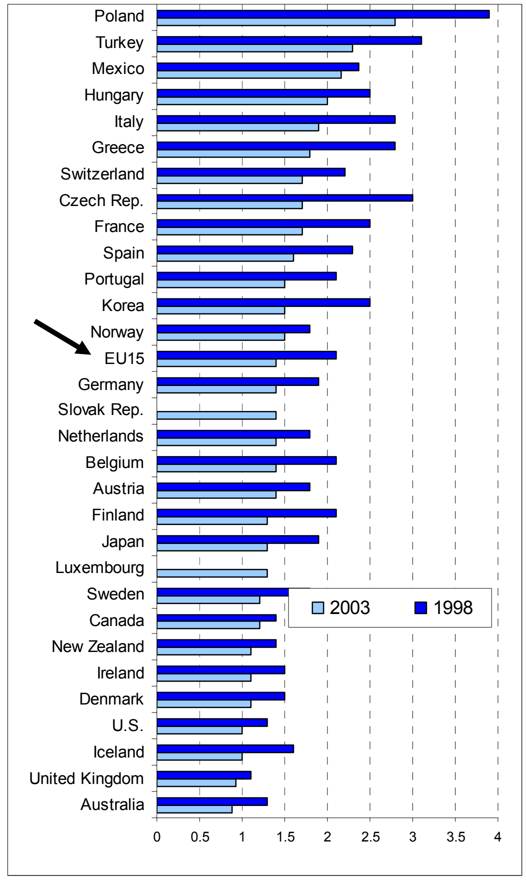
[7] Eurostat projection.
[8] See Conway, Janod, Nicolletti (2005).

Benchmarking product market regulation has proved to be a useful tool for monitoring the performance of policies and institutions in OECD countries and for identifying specific policy gaps, thus offering the opportunity to benefit from the experience of other member states. Two surveys have been conducted so far collecting data for 1998 and 2003. Results from these surveys point to a convergence in product market policies across OECD countries, with substantial improvements achieved by countries that originally exhibited relatively restrictive product market regulations, such as Poland, Turkey, Czech Republic, Greece, Italy, France, Mexico, Korea, Hungary, and Spain (
Figure 2) Substantial improvements in easing product market policies have also been achieved among EU15 countries where the average PMR score fell from 2.1 in 1998 to 1.4 in 2003. While this reflects the increasing harmonization of EU common market rules, the PMR benchmarking may have been instrumental in fostering this improvement.

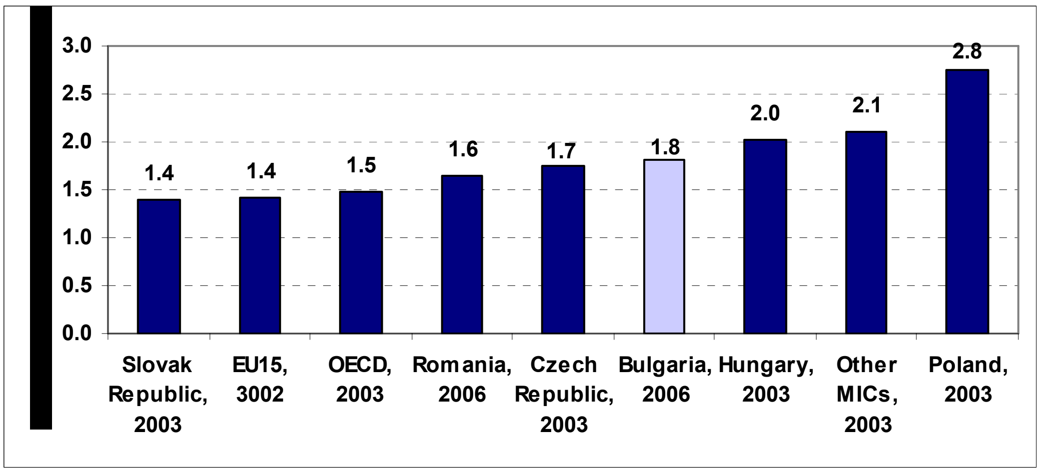
Figure 2. Product Market Regulation among OECD countries, a comparison between 1998 and 2003



Source: Conway, Janod, Nicoletti 2005.
Note: A lower figure indicates a better performance.

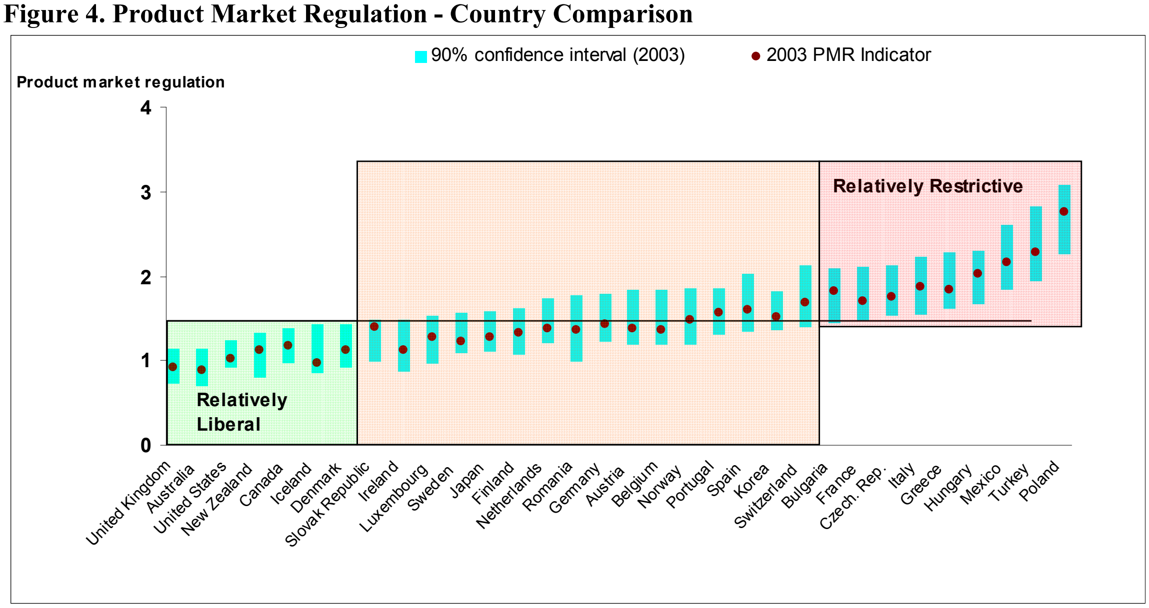
Product market policies, as measured by the overall summary product market indicator, are still relatively restrictive in Bulgaria compared to those of OECD countries. Simple comparisons suggest Bulgaria still scores less well than the EU 15 average, although better than many of its peers did in 2003 (Figure 3). Figure 4, which reports the summary PMR scores accounting for the uncertainty in the choice of weights used in the PMR system, confirms that Bulgaria falls into the group of relatively restrictive countries (which includes France, Greece, Italy and the Czech Republic as estimated with 2003 data).[9]

Figure 3. Product Market Regulation: Country Group Comparison



Source: see Figure 3. *Note*: Other MICs are Brazil, Mexico, Turkey. Values refer to 2006 for Bulgaria and Romania, 2004 for Brazil, and 2003 for all other countries. For full data set see appendix I.

Figure 4. Product Market Regulation - Country Comparison



Note: Values refer to 2006 for Bulgaria and Romania and 2003 for all other countries.

[9] See Conway, Janod, Nicolletti (2005) for details.

The confidence intervals are calculated using stochastic weights on the low-level indicators to generate a distribution of overall PMR indicators for each country. The 90 per cent confidence intervals are calculated from that distribution. Indicator values for the 'relatively liberal' and 'relatively restrictive' countries are significantly different at the 90 percent level of confidence (Conway, Janod, Nicoletti, 2005).

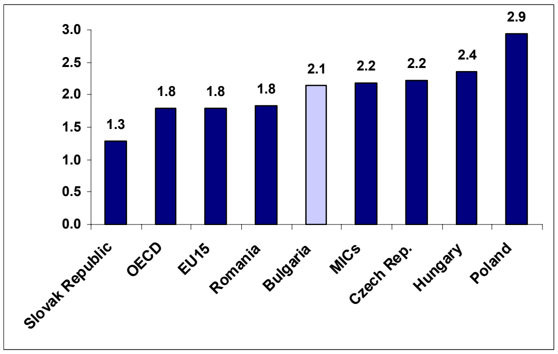
In order to identify the sources of restrictiveness of product market regulation, the indicator may be decomposed into the broad categories of *inward-oriented* policies and *outward-oriented* policies. The former include policies and regulations that determine the degree of state control and barriers to entrepreneurship, while the latter reflect policies and regulations that affect barriers to trade and investment. A detailed description of what the indicators measure follows in the next sections.

Compliance with the *acquis communautaire* for EU accession and membership of the WTO has an important impact on both inward- and outward-oriented policies. EU legislation must eventually be fully implemented in a wide range of domains as a precondition to participating in the EU-wide single market for goods and services. Nonetheless, greater reform challenges, as well as greater cross-country variation, lie with the regulations that fall under the category of inward-oriented policies. Indeed, while implementation of the *acquis communautaire* is certainly reflected in certain aspects of the inward regulatory framework in Bulgaria (e.g. competition policy), many areas are still subject to a large degree of domestic discretion.

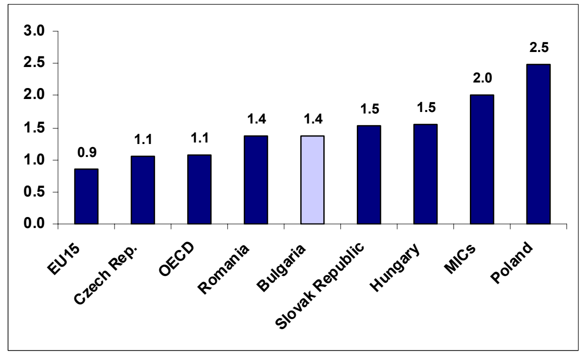
Thus, average scores are lower (less restrictive) across the board for outward-oriented policies than for inward-oriented ones. This is certainly due to the requirements that are imposed by international agreements - such as the WTO charters, and, for EU countries, membership in the European Union - which are more binding in matters concerning trade and foreign direct investment. Within this general picture, it appears, nonetheless, that Bulgaria performs relatively better with respect to outward-oriented policies (Figure 5).

Figure 5. Inward- and outward-oriented policies

(a) Inward-oriented policies



(b) Outward-oriented policies



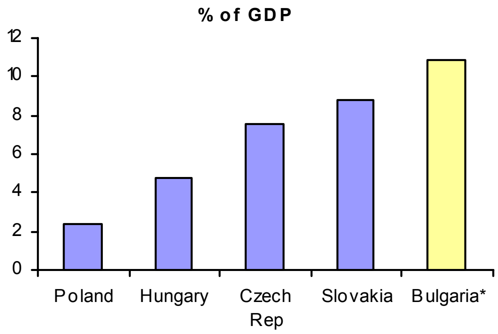
Source: see Figure 3. *Note*: Other MICs are Brazil, Mexico, Turkey. Values refer to 2006 for Bulgaria and Romania, 2004 for Brazil, and 2003 for all other countries. For full data set see appendix I.

1. Outward-oriented policies

Compliance with international commitments may more easily impose discipline on policymakers. Indeed, this probably explains why all country groups do better on average in their outward-oriented policies ratings than in the inward-oriented one. In the case of Bulgaria, observance and implementation of the rules for membership of the World Trade Organization (WTO) and, even more strongly, the European Union (EU) has led it to significantly reduce barriers to trade and investment since the start of transition. Bulgaria's foreign trade policy has been driven most of all by the commitments of the EU Eastern Enlargement project, promoting bilateral trade liberalization initially with the EU and EFTA and, subsequently, with other preferential partners of the EU. The *Pan-European Agreement on the Cumulation of the Rules of Origin* combined with the removal of tariffs on all industrial products and the harmonization of technical standards has led to Bulgaria's participation in a *de facto* free trade area for industrial products (World Bank, 2005).

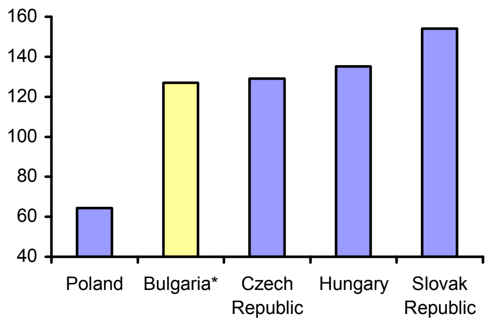
As a testament to Bulgaria's success in this respect, foreign direct investment net inflows increased from 6% of GDP in 2001 to 16.5% in 2006, while trade in goods and services expanded from 119% to 149% of GDP in the same period. FDI has gone to a variety of sectors, notably manufacturing, financial sector, trade, and transport, and has amply made up for the expanding external current account deficit, which is expected to exceed 13% of GDP in 2006. Looking forward, strong FDI inflows will be instrumental in ensuring continued macroeconomic stability and productivity growth. Therefore, continued improvements in the business environment remains critical.

Figure 6. FDI inflows, average 2001-03



Source: WIIW and Eurostat
*Data for Bulgaria refer to 2003-05

Figure 7. Trade Integration, average 2001-03



Source: Eurostat
*Data for Bulgaria refer to 2003-05

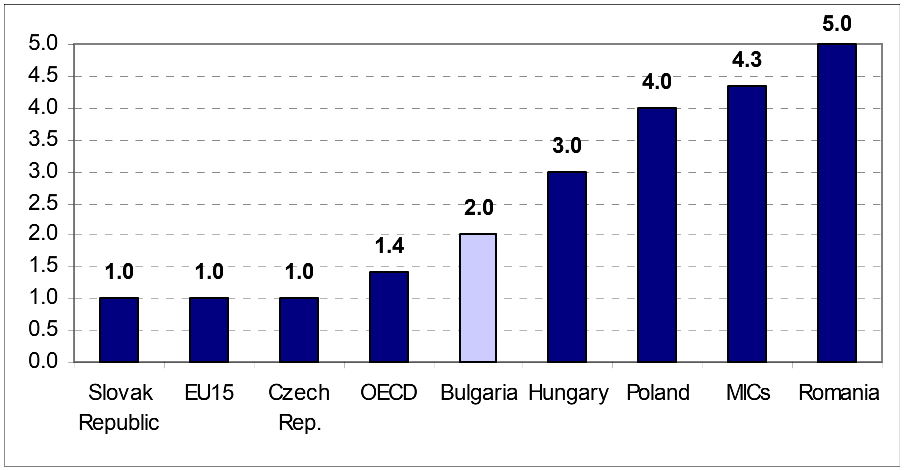
Examining the various component indicators of outward-oriented policies sheds light on the sources of the gap between Bulgaria and OECD CEE countries. These include explicit barriers to trade and foreign investments such as tariffs, discriminatory procedures against foreign firms and foreign ownership barriers, as well as regulatory barriers such as the absence of international harmonization or mutual recognition agreements.

While Bulgaria has achieved best practice standards in incorporating in legislation the principle of non-discrimination against foreign parties and has eliminated all other regulatory barriers to trade and investment (discussed in 1.3), progress can still be made in terms of tariffs and remaining obstacles to foreign investments.

1.1 Tariffs

First generation reforms rapidly succeeded in eliminating all quantitative restrictions and the state monopoly over foreign trade (Kaminski, 2006) and the EU Eastern Enlargement project rapidly led to Bulgaria's participation in a European free trade area. As a result Bulgaria's tariff levels (measured here as MFN tariffs on industrial goods) are much lower in 2006 than those of comparator middle income countries and even slightly lower than some of the pre-accession OECD CEE (Figure 8). In particular, Hungary and Poland entered the EU with substantially higher tariff levels than Bulgaria's in 2006. In addition, Bulgaria's tariff levels have been lowered to those of the EU common market as of its entry into the EU as of January 1, 2007.

Figure 8. Tariffs



Source: see Figure 3. *Note*: Other MICs are Brazil, Mexico, Turkey. Values refer to 2006 for Bulgaria and Romania, 2004 for Brazil, and 2003 for all other countries. For full data set see appendix I.

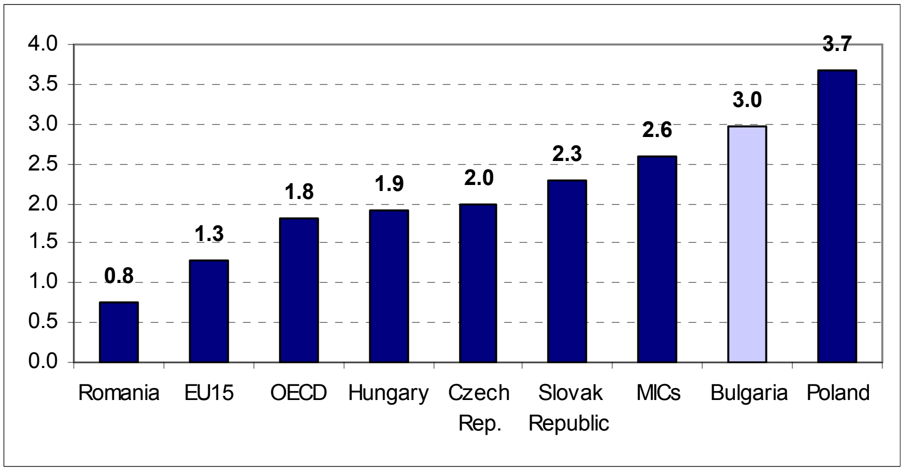
1.2 Barriers to foreign direct investment

Barriers to foreign direct investment include foreign ownership barriers, discriminatory procedures against foreign firms, and other barriers to trade and investment, all of which are presented in detail below. One such barrier concerns legal restrictions on foreign participation in the equity of domestic firms and in telecommunications and airline sectors. In this regard, Bulgaria does not compare well with high income EU countries, or with pre-accession CEE countries and other MICs (
Figure 9).

Foreign ownership barriers take the form of statutory or other legal limits to the proportion of shares that can be acquired by foreign investor or of special voting rights that can be exercised in case of acquisition of equity by foreign investors. Such restriction may apply in general or be limited to specific sectors that are considered ‘strategic’ such as air transport, telecommunications, and electricity generation.

Bulgaria fares relatively poorly in this respect mostly because of general ownership barriers – which in Bulgaria actually apply to domestic and not just foreign investors. (Barriers in specific sectors are in line with those in the EU - for example the 49% foreign ownership ceiling in the airlines sector is standard across EU countries.)

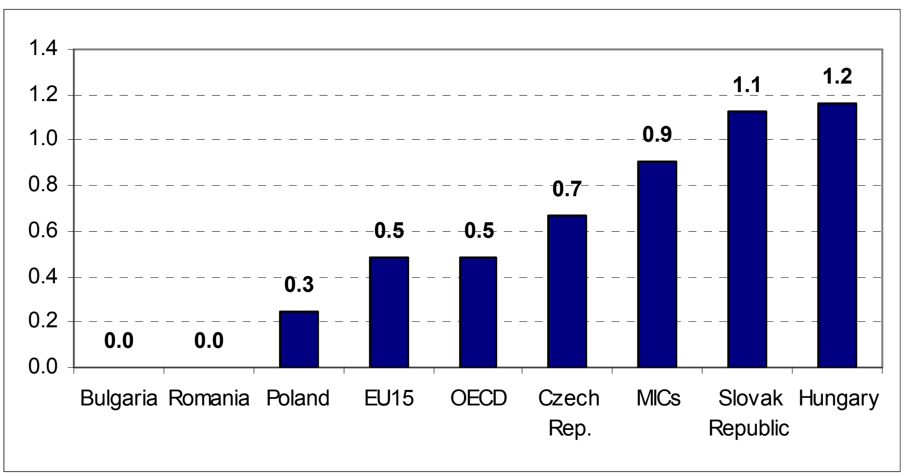
Figure 9 Foreign ownership barriers



Source: see Figure 3. *Note*: Other MICs are Brazil, Mexico, Turkey. Values refer to 2006 for Bulgaria and Romania, 2004 for Brazil, and 2003 for all other countries. For full data set see appendix I.

This is therefore consistent with the finding that Bulgaria does not discriminate against foreign firms (Figure 10). The rights of foreign firms in Bulgaria to appeal and redress through competition agencies, regulatory bodies, trade policy bodies, or private rights of action is equal to those of domestic firms.

Figure 10. Discriminatory Procedures against foreign firms

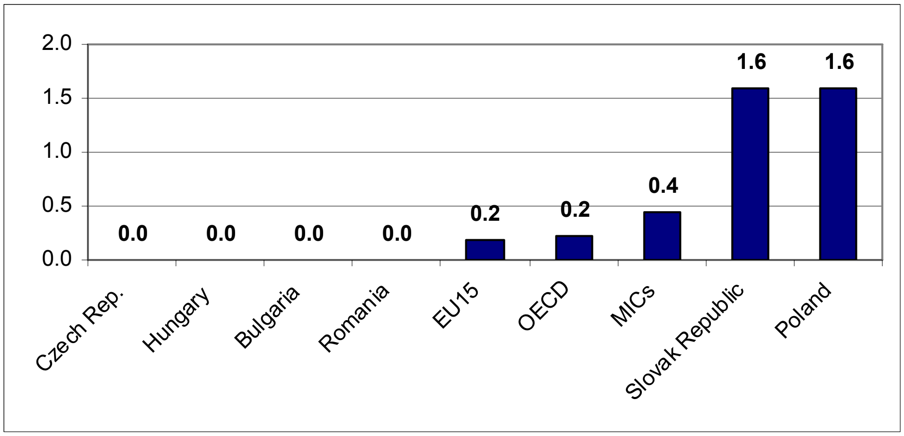


Source: see Figure 3. *Note*: Other MICs are Brazil, Mexico, Turkey. Values refer to 2006 for Bulgaria and Romania, 2004 for Brazil, and 2003 for all other countries. For full data set see appendix I.

1.3 Regulatory barriers to trade and investment

Bulgaria has also completely eliminated other regulatory barriers to trade and investment. These barriers include the absence of mutual recognition agreements with other countries such as specific provisions which require regulators to recognize regulatory measures performed in other countries; to use internationally harmonized standards and certification procedures; or avoid unnecessary trade restrictiveness. In this respect, Bulgaria has, in fact, achieved best practice (Figure 11).

Figure 11. Regulatory barriers to trade and investment



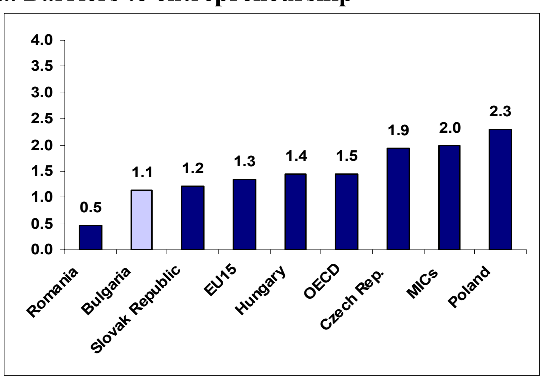
Source: see Figure 3. *Note*: Other MICs are Brazil, Mexico, Turkey. Values refer to 2006 for Bulgaria and Romania, 2004 for Brazil, and 2003 for all other countries. For full data set see appendix I.

2. Inward-oriented policies

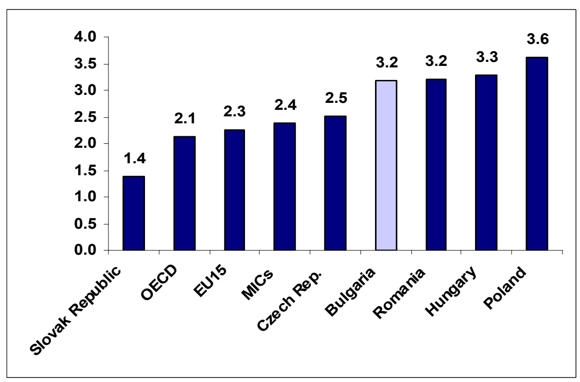
Inward-oriented policies in the PMR system can be decomposed into two broad categories: indicators of state control and barriers to entrepreneurship (Figure 12).

Figure 12. State control and barriers to entrepreneurship

a. Barriers to entrepreneurship



b. State control



Source: see Figure 3. *Note*: Other MICs are Brazil, Mexico, Turkey. Values refer to 2006 for Bulgaria and Romania, 2004 for Brazil, and 2003 for all other countries. For full data set see appendix I.

Bulgaria performs very well with respect to barriers to entrepreneurship. Priorities concerning inward policies clearly lie with state control. The legacy of central planning is still visible in CEE countries, since they perform comparatively worse than all other groups, although Euro zone countries, with a tradition of heavy state involvement in the economy, present not much lower values.[10] As a general trend, most of the OECD countries that had relatively restrictive policies in 1998 have succeeded in reducing the

[10] See Tables in the Annex.

extent of state control in 2003 by removing price controls and reducing reliance on coercive - as opposed to incentive-based - regulations.

2.1 Barriers to entrepreneurship

Barriers to entrepreneurship include barriers to competition, regulatory and administrative opacity and administrative burdens on start-ups. These are discussed in turn below.

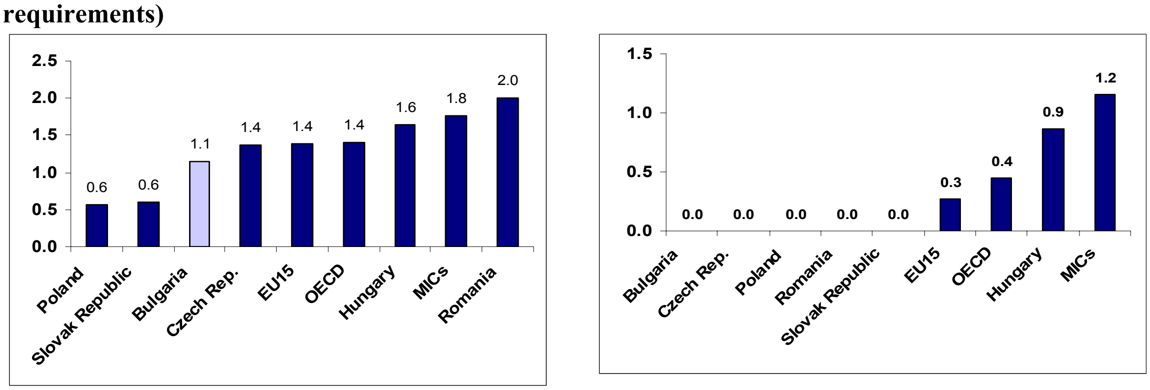
2.1.1 Barriers to competition

Bulgaria scores better than the EU average in terms of barriers to competition (as measured by license and permit requirements or antitrust exemptions). It also outperforms other MICs (Figure 13). This is largely due to Bulgaria's diligence in incorporating EU rules and best practices in national legislation. This resulted in the elimination of antitrust exemptions for state-owned enterprises (Campeanu et al., 2003). In this regard Bulgaria fares very well and even better than EU15 and the average for the OECD countries.

Bulgaria also compares well in terms of other legal barriers to competition, such as explicit legal limitations on the number of competitors allowed in certain business sectors. Bulgaria still maintains some legal restrictions to entry in network and utilities sectors (air transport infrastructure; collection, purification and distribution of water; electricity generation, transmission, distribution and supply; and gas production, transmission, distribution and supply) but these are fairly standard among other OECD and EU countries.

Figure 13. Barriers to competition

a. Legal barriers (licenses and permit requirements) **b. Antitrust exemptions**



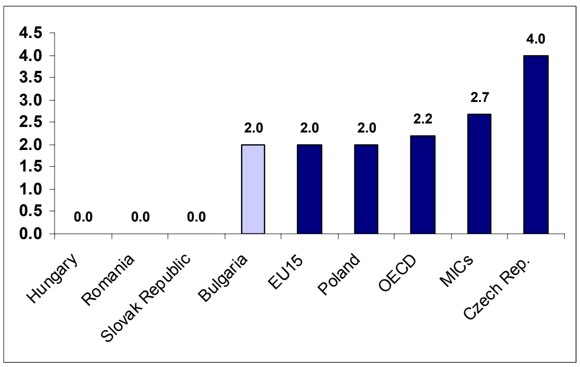
Source: see Figure 3. *Note*: Other MICs are Brazil, Mexico, Turkey. Values refer to 2006 for Bulgaria and Romania, 2004 for Brazil, and 2003 for all other countries. For full data set see appendix I.

2.1.2 Regulatory and Administrative Opacity

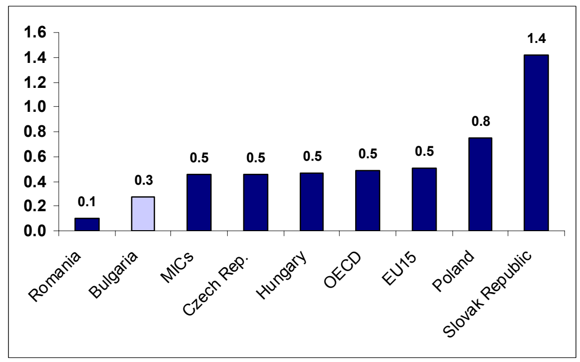
Important progress has been made since 2002 in streamlining licensing regimes at the national level. A program for optimization of the centrally managed regulatory regimes for licensing, permission and registration has been implemented. As a result 85 percent of the regulatory regimes slated for optimization were modified or eliminated. In addition, a *Law on Administrative Regulation and Administrative Control on Economic Activities* was enacted to control the development of future licensing regimes. The law establishes the principle that new regulation can only be passed with parliamentary approval; that new regulatory regimes are limited to the initiative of line ministries and other government agencies; and requires new regulation to be accompanied by an assessment of compliance cost. Specific guidelines were issued to central and municipal bodies on the design of proposed new regulatory regimes, including the identification and measurement of costs and benefits, and the establishment of a process by which new regimes evolve appropriately from concept to implementation.

Figure 14: Regulatory and Administrative Opacity

a. Licenses and permit system



b. Communication and simplification of rules

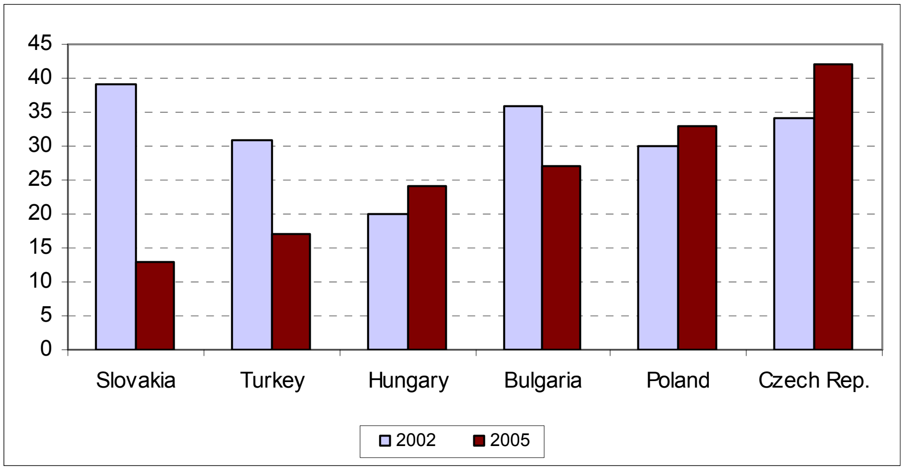


Source: see Figure 3. *Note*: Other MICs are Brazil, Mexico, Turkey. Values refer to 2006 for Bulgaria and Romania, 2004 for Brazil, and 2003 for all other countries. For full data set see appendix I.

The achievements in the simplification of licenses and permits requirements are visible in the levels of regulatory and administrative opacity, where Bulgaria compares well with benchmark groups, ranking as well as or better than the EU 15 or the OECD (Figure 14a).[11] These achievements are also reflected in the fact that businesses in Bulgaria now perceive licenses and permits as less of a problem for doing business than in 2002 (Figure 15).

[11] Note that, since accession, the Czech Republic, Hungary, Poland and the Slovak Republic have continued progressing with their reform agenda implying that the gap between these countries today and Bulgaria is larger than what the 2003 data suggest. For instance, in January 2004, Poland enacted a *Law on Economic Freedom*, reducing the number of licensing regimes from 9 to 5 and introducing the 'silence is consent rule' in business registration and in various areas administrative regulation.

Figure 15. Business Licenses as a Problem for Doing Business (percent of firms indicating business licenses and permits as a problem for doing business)



Source: EBRD-WB BEEPS, 2005.

Bulgaria also fares well in terms of communication and simplification of rules and procedures (Figure 14b) compared to OECD countries. The indicator captures aspects of the government's communication strategy and its efforts to reduce and simplify the administrative burden of interacting with government.

Bulgaria has implemented a number of reforms to improve the communication of rules and procedures to affected parties. The *Law on Normative Acts* was amended in 2003 to require that all affected parties be notified through mass media or representative associations prior to the approval of new regulation by Parliament. In addition, the *Law on Administrative Regulation and Administrative Control on Economic Activities requires* that the rationale and the regulatory impact evaluation for a draft legislation that introduces licensing or registration regime, is posted on the web or released publicly. Affected parties have the right to comment on the proposed regulation. Consultations on new legislation are organized with business associations or interested groups and some of the new regulations are discussed at the sessions of the Council for Economic Growth[12]. The Law on Normative Acts also requires the use of plain language when drafting of rules and regulations.

Reforms aimed at simplification of rules and procedures also took off in 2003 with a completed count of all centrally mandated licenses and permits and clearly defined rules and responsibilities for their optimization. Further steps could include the simplification of sector-specific regimes and the extension to the municipal level of rules such as 'silence is consent' for business registration and licensing.

2.1.3 Administrative Burdens on Start-Ups

[12] A consultative body established in 2002 under the Council of Ministers that consists of representatives of businesses, and ministers of economy and energy, finance, transport, regional development, and labor and social policy.

Over the past several years, Bulgaria has made some progress in promoting a business friendly regulatory environment. This is reflected in the World Bank's Doing Business reports showing Bulgaria's overall ranking for the summary indicator for "ease of doing business" improving from 59th to 54th between 2005 and 2006.[13] Bulgaria's relative position in the sub-indicator for "starting a business" is somewhat worse, although up from 91st in 2005 to 85th out of 75 economies in 2006. A closer look at the components of this indicator reveals that Bulgaria still lags behind comparator countries for the number of steps entrepreneurs can expect to go through to launch; the time it takes on average; and the cost and minimum capital required as a percentage of gross national income (GNI) per capita (Table 1).[14]

Table 1. Starting a business in 2006**: Component indicators**

	Bulgaria	Romania	Czech Republic	Hungary	Poland	Slovak Republic	OECD	EU15
Procedures (number)	***9***	5	10	6	10	9	6.9	6.9
Time (days)	***32***	11	24	38	31	25	19.3	19.7
Cost (% of income per capita)	***7.9***	4.4	8.9	20.9	21.4	4.8	8.4	6.3
Min. capital (% of income per capita)	***91.3***	0	36.8	74.2	204.4	39.1	52.4	33.9

Source: Doing Business 2007.

These achievements reflect efforts underway to ease the administrative burden on firms. In the beginning of 2006, the National Revenue Agency started an operation that integrates the collection of taxes and social contribution with a view to reducing the taxpayer compliance burden. Other activities are being implemented to simplify and ease reporting requirements for taxpayers, particularly for start-ups. In 2006 a Law on Commercial Registry was enacted that transfers the responsibility for business registration from judicial courts to a special enlistment agency, thus transforming business registration into an administrative process. However, the start of the new agency has been postponed to July 2007.

Nevertheless, the PMR indicators show that administrative burdens are still an issue for specific service sectors, such as road transport and retail distribution (Figure 16). These sector specific administrative burdens assess the restrictiveness of licensing, registration and notification requirements, as well as technical, health and safety standards,

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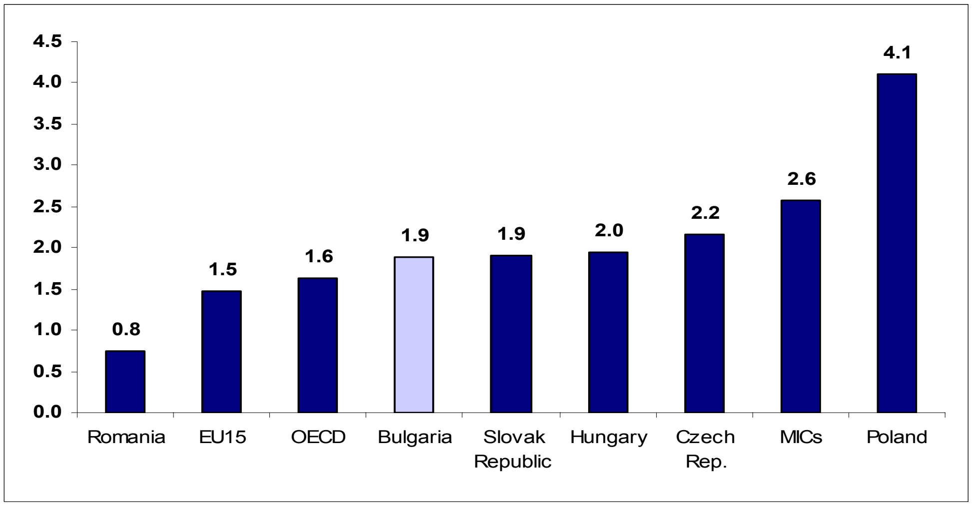
[13] The summary "Ease of doing business" indicator is constructed from the following components: Starting a Business, Dealing with Licenses, Employing Workers, Registering Property, Getting Credit, Protecting Investors, Paying Taxes, Trading Across Borders, Enforcing Contracts, Closing a Business.

[14] The PMR indicator for "administrative burdens on start-ups" shows an even better positioning of Bulgaria relative to OECD countries. Nonetheless, some caution is in order given that, due to data availability, the underlying components were estimated relying on a different methodology to the one used for OECD countries. Values for Bulgaria and Romania were obtained based on Doing Business 2005 data. Since Doing Business information on number of procedures, number of days and cost connected with starting a company are not directly comparable to the same information in the OECD International Regulation Database, a normalization process was necessary to homogenize the scores obtained. See Annex Table A2.8 for details.

Figure 16: Sector specific administrative burdens



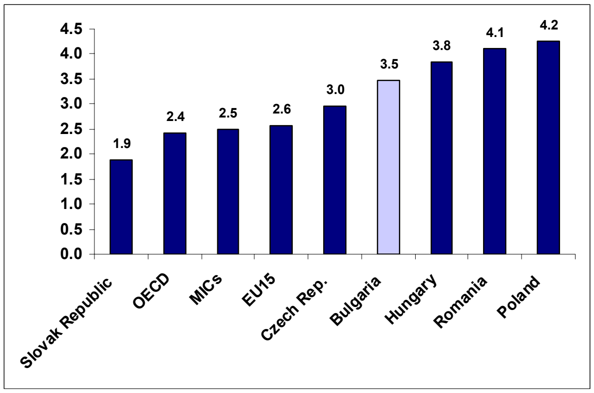
Source: see Figure 3. *Note*: Other MICs are Brazil, Mexico, Turkey. Values refer to 2006 for Bulgaria and Romania, 2004 for Brazil, and 2003 for all other countries. For full data set see appendix I.

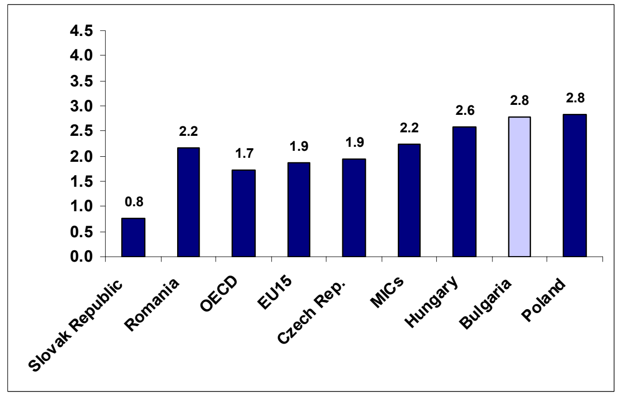
2.2 State control of economic activity

The degree of state control in the business sector has decreased substantially in Bulgaria since 1998. In the aftermath of the 1996-1997 crisis an ambitious program of macroeconomic stabilization and structural reforms placed Bulgaria on the course to EU accession. A crucial element of the reform package was the substantial reduction of the state's presence in the economy. Between 1998 and 2002, most of the non-infrastructure enterprises and banks were privatized, thus reducing both the size and the scope of the public presence in the business sector. Currently, about 60 percent of all state-owned enterprises (valued at end-1995 prices), and 91 percent of all assets slated for privatization, have been privatized. At the same time, extensive price liberalization reduced the role of the state in many services.

The two measures of state control in the PMR system are public ownership and state involvement in business operations (through price controls and coercive, as opposed to incentive-based, regulation). A look at Figure 17 reveals that Bulgaria still remains quite far from OECD and EU levels with respect to both indicators, although it is on par with the pre-accession CEE (with the exception of the Slovak Republic).

Figure 17. Public ownership and state involvement in business operation
a. Public ownership **b. State involvement in business operations**





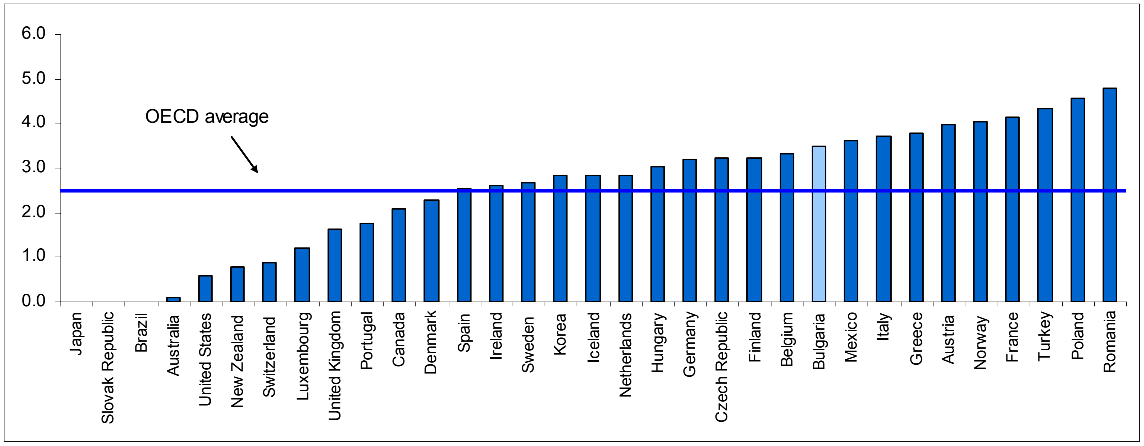
Source: see Figure 3. *Note*: Other MICs are Brazil, Mexico, Turkey. Values refer to 2006 for Bulgaria and Romania, 2004 for Brazil, and 2003 for all other countries. For full data set see appendix I.

2.2.1 Public ownership

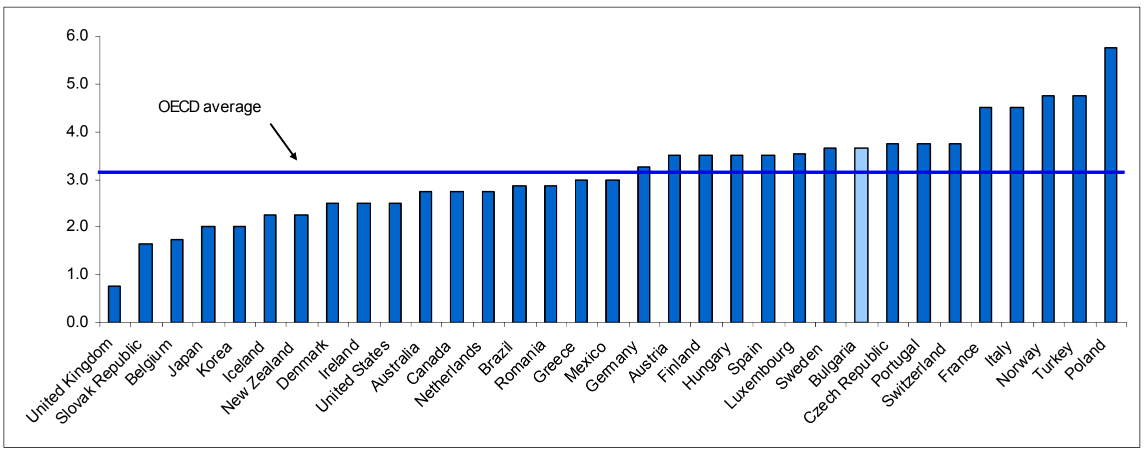
The aggregate indicator for public ownership covers size and scope of public enterprise sector, as well as direct control over business enterprises. Given that there is much variation among EU15 or OECD countries for these indicators, we show the full set of comparators (Figure 18). The figure suggests the size and scope of the public sector in Bulgaria is fairly standard (although within the upper tier), while state control of public enterprises remains more extensive.

Figure 18 Public ownership: size, scope and extent of control over public enterprises

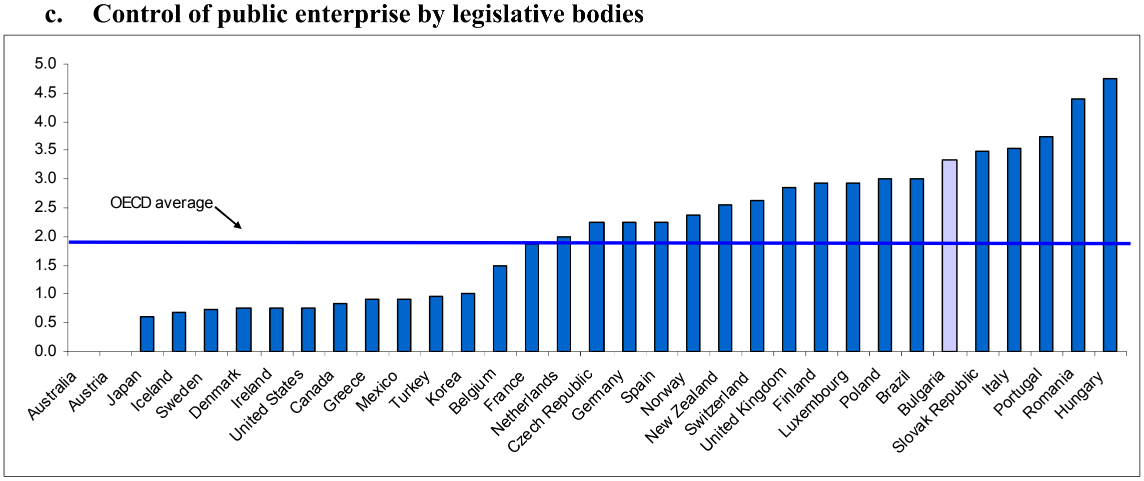
a. Size of the public enterprise sector



b. Scope of the public sector



c. Control of public enterprise by legislative bodies



Source: see Figure 3. *Note*: Other MICs are Brazil, Mexico, Turkey. Values refer to 2006 for Bulgaria and Romania, 2004 for Brazil, and 2003 for all other countries. For full data set see appendix I.

The Bulgarian public enterprise sector remains important as a share of GDP.[15] However, it is still smaller than that of a number of EU15 countries such as Austria, France, Italy, Greece and Norway. As to its scope, it is also wide given that the Bulgarian state holds equity in the largest firm in 14 out of 23 sectors of the economy.[16] This however, places Bulgaria very close to the OECD average, and appears to be fairly standard (Figure 18b).

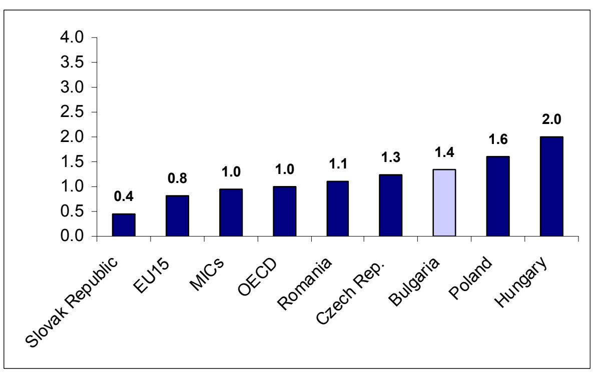
As to the instruments of control used by the Bulgarian state in the sectors where it remains involved, they seem more extensive than in most benchmark countries (Figure 18c). The similarity with Hungary, Poland, and the Slovak Republic suggests that transition countries have followed a similar approach in this domain. Direct control over business enterprises in Bulgaria has taken the form of constraints to the sales of state-owned equity stakes, special voting rights, and, to a lesser extent, control of the strategic choices of public enterprises by legislative bodies (see Annex Table A2.3 for details).

2.2.2 State Involvement in Business Operation

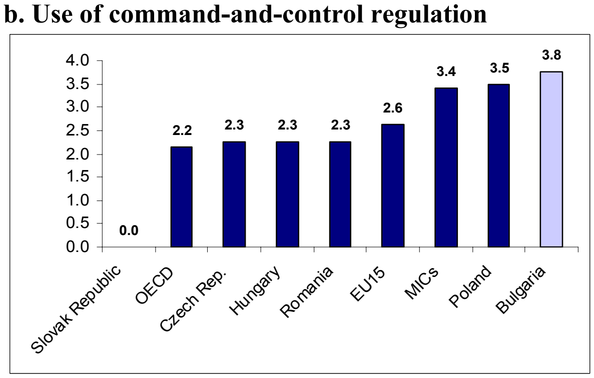
State intervention in the overall economy is captured through price controls and "use of command and control regulations." The price control indicator measures the existence of price regulation or administrative control of prices in air travel, road freight, telecommunications, and retail distribution sectors. The "use of command-and-control" indicator reflects the extent to which government uses prescriptive (as opposed to incentive-based) regulation both in general and in specific service sectors.

Figure 19: State involvement in business operations

a. Price controls



b. Use of command-and-control regulation



Source: see Figure 3. *Note*: Other MICs are Brazil, Mexico, and Turkey. Values refer to 2006 for Bulgaria and Romania, 2004 for Brazil, and 2003 for all other countries. For full data set see appendix I.

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[15] This was calculated following the PMR methodology. As its base, it uses an indicator of the size of the public enterprise sector taken from the Freedom of the World Indicators (Gwartney and Lawson 1997). This base indicator value is then adjusted each year based on the extent of privatization proceeds as a share of GDP using a perpetual inventory type approach (see Appendix table A2.2) for more details.

[16] The indicator does not into account the number of shares or the proportion of state ownership. In Bulgaria, for examples, state ownership in some of the sectors is 1%.

Price controls have been largely removed since the first phase of transition (Kaminski, 2006), although Bulgaria still score well above the OECD and EU (Figure 19)[17]. In addition, reliance on prescriptive regulation is much more pronounced than in all comparator groups, although it is similar to Poland's and the MICs 2003 average and should certainly represent a high priority for the reform efforts of policymakers.

Box 2 What the PMR survey means by "command and control" regulation

The contrasting use of "command-and-control" and "incentive-based" regulation appear to have been brought into common usage by Schultze who wrote in a 1977 lecture about economic efficiency: "We tend to see only one way of intervening – namely removing a set of decision from the decentralized and incentive-oriented private market and transferring them to the command-and-control techniques of government bureaucracy" (page 6)

In this context, the PMR attempts to measure the extent to which the cost of new regulation is assessed, and whether alternatives are considered before implementing new regulations. About half of the indicator weights are allocated to the following two questions (the full make-up of the indicator is provided in Annex table A2.5):

Regulators are required to assess alternative policy instruments (regulatory and non-regulatory) before adopting new regulation. (Current answer: no).

Explanation. The use of a wide range of mechanisms for meeting policy goals, not just traditional regulatory controls, helps to ensure that the most efficient and effective approaches are used. Approaches may include green taxes and subsidies, voluntary agreements, information programs such as eco labeling, self-regulation, permit-trading schemes, and performance-based regulation (where a sector or industry must comply with a standard but can broadly choose how to meet it). Note that the question only refers to whether the obligation exists as a specific provision in a specific legislative act, not whether the spirit of it is in fact respected. A positive answer to the question would require the existence of a normative act explicitly ruling out regulation as the default option

Guidance has been issued on using alternatives to traditional regulation. (Current answer: no).

Explanation. The regulatory process is governed by a standard procedure, outlining the steps to be taken to issue new regulation. For instance, the procedure may include binding ex ante regulatory impact assessment (RIA). Box 2 offers a discussion of alternatives to traditional regulation.

A detailed look at the make-up of this indicator shows that Bulgaria's very high (poor) score is almost entirely driven by the fact that regulators are not required to consider alternative instruments before issuing new regulations, and no guidance has been issued concerning the use of alternatives to traditional (Box 2).

Bulgaria performs very well on the other components of this indicator, which measure the use of prescriptive regulation in the specific sectors included in the PMR approach (air travel, road freight, railways and retail distribution). Universal service requirement for

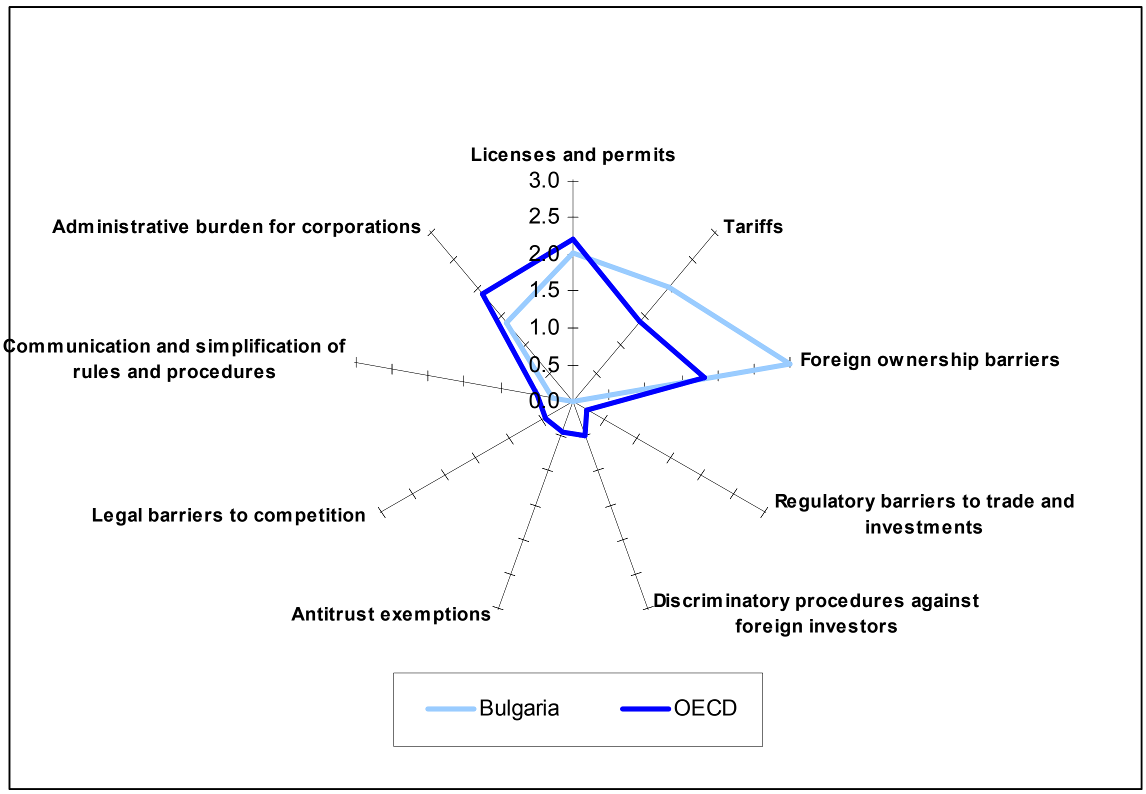
[17] By the time the report was finalized, prices of tobacco have already been liberalized. Since August 2006, prices of all tobacco products, including cigarettes, are subject only to registration regime.

railways (which is standard) is the only command-and-control regulation picked up by the sectoral questions.

CONCLUSION

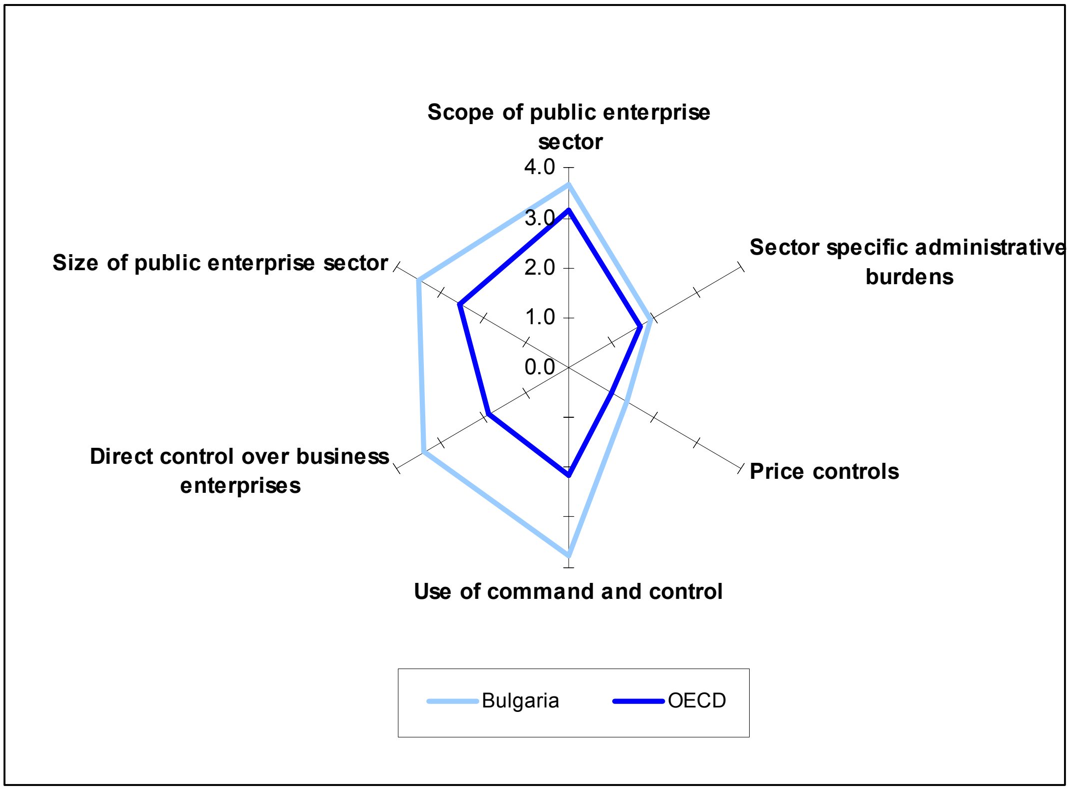
Over the last years, Bulgaria has implemented substantial structural reforms on many fronts, including in improving the regulatory environment for doing business. As a result, it is now performing as well or better than the average for the OECD on a number of indicators. As shown in Figure 20, Bulgaria has been very successful in reducing barriers to trade and investment, and in eliminating regulatory barriers and discriminatory procedures against foreign investors. Tariffs were above the OECD average in 2006 but are now in line with EU rules. With respect to barriers to entrepreneurship, Bulgaria has managed to eliminate a number of them (such as antitrust exemptions) or is on par with the OECD average for several others (licenses and permits, and legal barriers to competition).

Figure 20 Indicators in which Bulgaria performs as well as the OECD average (or is about to): outward-oriented policies, barriers to competition and licenses and permits.



However, an important agenda lies ahead if Bulgaria is to continue eliminating barriers to entrepreneurship and further reduce state control (Figure 21).

Figure 21. Remaining gaps compared to the OECD



In fact, the Bulgarian state continues to exercise a greater amount of control over the economy than is the norm among OECD countries – at least as measured by the PMR approach. The size and scope of the public sector are above the average, yet the two indicators that standout concern the extent of direct control over business enterprises and the use of command-and-control (as opposed to incentive-based) regulation. (Table A2. 3 and Table A2. 5 show the detailed composition of these indicators). Actions to improve Bulgaria's performance on both counts could include:

- **Increase reliance on incentive-based regulation.** In a narrow sense this entails requiring regulators to consider alternatives to any regulation they seek to introduce as is now the norm in OECD countries. More substantively, this requires changing the regulatory and administrative culture so that new regulation is not the default option to modify economic behavior. Among other things, this will require providing guidance and training on what may constitute valid alternatives to regulation (Box).
- **Reduce control over business enterprises in which the state has interest.** As shown in Table A2. 3, the practice of holding golden shares has been eliminated by the majority of OECD countries. Of those that still have golden shares, only about half use them to affect strategic decisions of firms, as is still the case in Bulgaria. More generally, responses to the PMR questionnaire suggest that the strategic choices of publicly controlled firms have to be reviewed or cleared by a national or sub-national legislature. This practice has now been abandoned by about half the countries in the OECD.

And while Bulgaria has made great stride in improving its business environment, it is still not at the OECD average. Particular areas in need of further attention are:

- **Further reducing administrative burdens, overall and sector specific. In general,** implementation of the new business registry would further streamline and simplify business registration. At the same time, easing off the licensing and registration regimes for retail distribution of food and clothing would also help reduce burdens on businesses.
- **Improve communication of rules and procedures to the affected parties** by extending the program for optimization of licensing and permits system to municipalities and revisiting the effectiveness of the program at central government level.

Finally, it should be noted once more that the PMR methodology does not capture implementation or common practices associated with the rules and regulations it measures. Bulgaria has made impressive strides towards the enactment of rules and regulations that are less restrictive of competition. However, for this progress to be reflected in an improved business environment, government policy in years to come will need to be directed towards ensuring effective implementation and enforcement.

Box 3: Alternative Regulatory approaches

Performance-Based Regulations—specify required outcomes or objectives rather than the means by which they must be achieved. Thus firms and individuals can choose processes that are more efficient and less costly, which promotes the use of new technology on a broader scale. Such type of regulation is increasingly used in health, safety, consumer protection, and environmental regulation. Drawbacks include measurement problems related to desired outcomes, higher administrative and monitoring costs, greater responsibilities for small companies to develop appropriate compliance strategies. Most countries have resorted to the use of guidelines or "safe harbors" in conjunction with performance-based regulation. Guidelines provide information on appropriate compliance strategies, while safe harbors allow the benefits of certainty of compliance associated with prescriptive regulation to be attained, while also allowing more innovative firms to take advantage of the benefits of such regulation.

Process Based Regulations—require businesses to develop processes that systematically control and minimize production risks. These processes are used in businesses with multiple and complex sources of risk, where ex post testing of the product is either ineffective or expensive. Process based regulation is predominantly used in health, food safety, and environmental regulation.

Co-regulation—businesses take the lead in regulation through endorsement and adherence to codes of practice. This type of regulation is highly cost effective for the government. Drawbacks include the possibility for encouraging anti-competitive activities by business or professional organizations.

Economic Instruments—taxes, subsidies, tradable permits, vouchers and the like. Economic instruments allow businesses to achieve regulatory goals in the least costly manner and provide market incentives which reward the use of innovation and technical change.

Information and Education—most widely used approach to regulation in OECD member states; empower consumers to adopt actions or make informed choices to change their behavior. Examples include campaigns aimed at reducing speeding when driving, anti-litter behaviors; reducing the use of drinking water; eco-labeling of products.

Guidelines—issued by regulatory authorities, setting out processing or providing interpretations to aid understanding of government objectives by businesses and citizens. Guidelines may accompany existing regulations, but also are increasingly used as stand-alone documents. Guidelines, for example, are widely used in the area of consumer protection in Denmark.

Voluntary Approaches—initiated by industries, sometimes formally sanctioned or endorsed by government. They include voluntary initiatives, voluntary codes, voluntary agreements, and self-regulation. An example of a voluntary arrangement is the chemical industry's Responsible Care Program, used in 40 countries, which promotes the adoption of rules for sound environmental management practice.

Source: OECD 2002.

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ANNEX I: COMPARISONS WITH FULL SAMPLE

Table A1. 1: PMR

	Product market regulation	Inward-oriented policies	Outward-oriented policies
Australia	0.9	0.9	0.9
United Kingdom	0.9	1.2	0.5
Iceland	1.0	1.4	0.4
United States	1.0	1.2	0.8
Ireland	1.1	1.4	0.6
Denmark	1.1	1.3	0.9
New Zealand	1.1	1.3	0.9
Canada	1.2	1.2	1.2
Sweden	1.2	1.5	0.9
Luxembourg	1.3	1.6	0.8
Japan	1.3	1.5	1.0
Finland	1.3	1.7	0.8
Belgium	1.4	2.0	0.5
Netherlands	1.4	1.8	0.8
Austria	1.4	1.8	0.8
Slovak Republic	1.4	1.3	1.5
Germany	1.4	1.9	0.8
Norway	1.5	1.9	0.9
Korea	1.5	1.7	1.3
Romania	1.6	1.8	1.4
Portugal	1.6	2.0	0.9
Spain	1.6	2.1	0.9
Switzerland	1.7	2.1	1.1
France	1.7	2.1	1.1
Czech Republic	1.7	2.2	1.1
Bulgaria	**1.8**	**2.1**	**1.4**
Greece	1.8	2.2	1.3
Italy	1.9	2.3	1.3
Brazil	1.9	1.8	1.9
Hungary	2.0	2.4	1.5
Mexico	2.2	2.1	2.3
Turkey	2.3	2.6	1.8
Poland	2.8	2.9	2.5

NOTE: The values of indicators refer to 2006 for Bulgaria and Romania, 2004 for Brazil, and to 2003 for all other countries (Conway et al. 2005).

Table A1. 2 State Control

	State control	Public ownership	Involvement in business operation
Australia	0.6	0.8	0.3
Iceland	1.1	1.8	0.3
United States	1.2	1.2	1.2
Denmark	1.3	1.7	0.8
Slovak Republic	1.4	1.9	0.8
New Zealand	1.4	1.9	0.8
Japan	1.5	0.8	2.4
Canada	1.7	1.7	1.5
Korea	1.7	1.8	1.5
United Kingdom	1.7	1.9	1.6
Mexico	1.9	2.3	1.4
Sweden	1.9	2.2	1.6
Netherlands	1.9	2.5	1.2
Austria	1.9	2.2	1.6
Ireland	2.0	1.8	2.1
Luxembourg	2.0	2.6	1.2
Germany	2.2	2.8	1.5
Switzerland	2.2	2.4	2.1
Finland	2.3	3.2	1.3
Belgium	2.4	2.2	2.6
Brazil	2.4	2.1	2.8
Czech Republic	2.5	3.0	1.9
France	2.7	3.3	1.9
Spain	2.7	2.7	2.7
Portugal	2.7	3.1	2.2
Norway	2.8	3.5	1.8
Greece	2.8	2.4	3.3
Turkey	2.8	3.1	2.5
Romania	3.2	4.1	2.2
Italy	3.2	3.8	2.3
Bulgaria	**3.2**	**3.5**	**2.8**
Hungary	3.3	3.8	2.6
Poland	3.6	4.2	2.8

NOTE: The values of indicators refer to 2006 for Bulgaria and Romania, 2004 for Brazil, and to 2003 for all other countries (Conway et al. 2005).

Table A1. 3 Barriers to Entrepreneurship

	Barriers to entrepreneurship	Administrative burdens on startups	Regulatory and administrative opacity	Barriers to competition
Romania	0.5	0.7	0.1	0.6
United Kingdom	0.8	0.7	1.2	0.4
Canada	0.8	0.9	0.5	0.7
Ireland	0.9	0.5	2.1	0.3
Norway	1.0	1.0	1.2	0.6
Sweden	1.1	1.2	1.1	0.6
Finland	1.1	1.3	1.2	0.4
Bulgaria	**1.1**	**1.4**	**1.2**	**0.4**
Australia	1.1	1.0	1.2	1.5
New Zealand	1.2	0.8	2.2	0.4
United States	1.2	1.0	1.3	1.5
Slovak Republic	1.2	1.9	0.7	0.3
Luxembourg	1.2	1.8	1.1	0.1
Denmark	1.2	0.5	2.1	1.7
Portugal	1.3	1.7	1.2	0.5
Brazil	1.3	1.5	1.4	0.6
Italy	1.4	2.4	0.4	0.6
Japan	1.4	1.9	1.2	0.6
Hungary	1.4	2.3	0.4	1.1
Germany	1.6	1.6	2.2	0.5
Iceland	1.6	1.4	2.4	0.7
Greece	1.6	2.6	0.6	0.5
Spain	1.6	2.8	0.4	0.4
France	1.6	1.9	1.3	1.4
Belgium	1.6	1.7	2.2	0.6
Austria	1.6	2.8	0.4	0.8
Netherlands	1.6	1.6	2.5	0.6
Korea	1.7	2.2	1.2	1.0
Switzerland	1.9	1.7	3.1	0.7
Czech Republic	1.9	2.3	2.3	0.5
Mexico	2.2	3.1	0.4	2.9
Poland	2.3	3.7	1.5	0.3
Turkey	2.5	2.7	3.4	0.5

NOTE: The values of indicators refer to 2006 for Bulgaria and Romania, 2004 for Brazil, and to 2003 for all other countries (Conway et al. 2005).

Table A1. 4: Barriers to trade and investment

	Barriers to trade and investment	Explicit barriers	Other barriers
Iceland	0.3	0.5	0.1
Belgium	0.3	0.5	0.1
United Kingdom	0.4	0.5	0.2
Ireland	0.5	0.8	0.2
Finland	0.6	1.0	0.2
Germany	0.6	0.6	0.7
Netherlands	0.7	1.0	0.3
Spain	0.7	0.7	0.6
Austria	0.7	1.0	0.2
Luxembourg	0.7	1.1	0.2
United States	0.7	1.1	0.2
Norway	0.8	0.9	0.6
Sweden	0.8	1.2	0.3
Portugal	0.8	1.2	0.3
Denmark	0.8	1.0	0.7
New Zealand	0.8	1.3	0.2
Australia	0.9	1.4	0.2
Czech Republic	0.9	1.4	0.3
Japan	0.9	1.4	0.3
France	1.0	1.5	0.3
Switzerland	1.0	1.5	0.4
Canada	1.1	1.7	0.4
Italy	1.1	1.7	0.4
Greece	1.2	1.4	1.0
Korea	1.3	1.9	0.4
Bulgaria	**1.3**	**2.0**	**0.4**
Romania	1.3	1.9	0.5
Hungary	1.4	2.1	0.6
Slovak Republic	1.6	1.6	1.5
Turkey	1.7	2.5	0.6
Brazil	1.9	2.3	1.5
Mexico	2.4	3.4	1.0
Poland	2.4	3.0	1.7

NOTE: The values of indicators refer to 2006 for Bulgaria and Romania, 2004 for Brazil, and to 2003 for all other countries (Conway et al. 2005).

Table A1. 5 State Control: values of the low-level indicators

	Scope of public enterprise sector	Size of public enterprise sector	Direct control over business enterprises	Use of command & control regulation	Price controls
Australia	2.8	0.1	0.0	0.4	0.0
Austria	3.5	4.0	0.0	2.2	1.3
Belgium	1.8	3.3	1.5	4.5	1.0
Brazil	2.9	0.0	3.0	4.2	1.3
Bulgaria	**3.7**	**3.5**	**3.3**	**3.8**	**1.4**
Canada	2.8	2.1	0.8	1.3	2.0
Czech Republic	3.8	3.2	2.3	2.3	1.3
Denmark	2.5	2.3	0.8	1.4	0.0
Finland	3.5	3.2	2.9	1.4	0.3
France	4.5	4.1	1.9	3.0	0.3
Germany	3.3	3.2	2.3	1.8	0.5
Greece	3.0	3.8	0.9	5.1	2.3
Hungary	3.5	3.0	4.8	2.3	2.0
Iceland	2.3	2.8	0.7	0.0	0.3
Ireland	2.5	2.6	0.8	3.8	0.8
Italy	4.5	3.7	3.5	1.9	2.0
Japan	2.0	0.0	0.6	3.0	2.5
Korea	2.0	2.8	1.0	1.1	2.0
Luxembourg	3.5	1.2	2.9	1.5	0.0
Mexico	3.0	3.6	0.9	1.7	1.0
Netherlands	2.8	2.8	2.0	1.7	0.3
New Zealand	2.3	0.8	2.6	0.8	0.0
Norway	4.8	4.0	2.4	2.2	0.8
Poland	5.8	4.6	3.0	3.5	1.6
Portugal	3.8	1.7	3.8	2.0	1.8
Romania	2.9	4.8	4.4	2.3	1.1
Slovak Republic	1.6	0.0	3.5	0.0	0.4
Spain	3.5	2.5	2.3	4.4	0.8
Sweden	3.7	2.7	0.7	2.3	1.0
Switzerland	3.8	0.9	2.6	1.2	2.6
Turkey	4.8	4.3	1.0	4.4	0.6
United Kingdom	0.8	1.6	2.9	2.3	0.4
United States	2.5	0.6	0.8	1.5	0.8

NOTE: The values of indicators refer to 2006 for Bulgaria and Romania, 2004 for Brazil, and to 2003 for all other countries (Conway et al. 2005).

Table A1. 6 Barriers to entrepreneurship: values of the low-level indicators

	Licence and permits system	Communication and simplification of rules and procedures	Administrative burdens for corporations	Sector specific administrative burdens	Legal barriers	Antitrust exemptions
Austria	0.0	0.5	3.0	3.4	0.3	1.0
Canada	0.0	1.0	0.8	0.9	0.9	0.6
Greece	0.0	1.1	2.3	2.9	1.6	0.0
Hungary	0.0	0.5	2.3	2.0	1.6	0.9
Italy	0.0	0.5	2.8	2.1	1.9	0.0
Mexico	0.0	0.3	3.3	3.2	1.9	3.5
Portugal	0.0	2.6	1.5	1.8	1.4	0.0
Slovak Republic	0.0	1.4	2.0	1.9	0.6	0.0
Spain	0.0	0.6	2.8	2.4	1.1	0.0
Romania	0.0	0.1	0.8	0.8	2.0	0.0
Australia	2.0	0.2	1.3	0.3	1.6	1.5
Finland	2.0	0.3	1.3	1.1	1.4	0.0
France	2.0	0.3	2.0	1.6	2.2	1.1
Japan	2.0	0.3	1.5	2.3	1.4	0.3
Korea	2.0	0.0	2.7	1.9	1.9	0.6
Luxembourg	2.0	0.0	2.5	0.3	0.3	0.0
Norway	2.0	0.2	1.0	0.9	2.2	0.0
Poland	2.0	0.8	4.3	4.1	0.6	0.0
Sweden	2.0	0.0	1.0	0.9	2.0	0.0
United Kingdom	2.0	0.2	0.8	0.6	1.4	0.0
United States	2.0	0.4	0.8	1.0	1.4	1.6
Brazil	2.0	0.6	0.5	1.3	2.0	0.0
Bulgaria	**2.0**	**0.3**	**1.4**	**1.9**	**1.1**	**0.0**
Belgium	4.0	0.3	1.8	1.7	1.6	0.0
Czech Republic	4.0	0.5	3.0	2.2	1.4	0.0
Denmark	4.0	0.0	1.0	0.3	1.4	1.9
Germany	4.0	0.3	2.3	1.4	1.4	0.0
Iceland	4.0	0.7	1.3	1.6	2.3	0.0
Ireland	4.0	0.2	0.8	0.3	0.9	0.0
Netherlands	4.0	0.9	2.0	1.3	1.9	0.0
New Zealand	4.0	0.3	1.0	0.8	0.3	0.4
Switzerland	6.0	0.0	2.3	0.8	2.2	0.0
Turkey	6.0	0.5	2.3	3.2	1.4	0.0

NOTE: The values of indicators refer to 2006 for Bulgaria and Romania, 2004 for Brazil, and to 2003 for all other countries (Conway et al. 2005).

Table A1. 7 Barriers to Trade and Investment: values of the low-level indicators

	Ownership barriers	Discriminatory procedures	Regulatory barriers	Tariffs
Belgium	0.3	0.0	0.0	1.0
Germany	0.3	0.7	0.7	1.0
United Kingdom	0.3	0.3	0.0	1.0
Romania	0.8	0.0	0.0	5.0
Spain	0.8	0.3	0.7	1.0
Iceland	1.1	0.0	0.0	0.0
Denmark	1.2	0.5	0.7	1.0
Ireland	1.2	0.0	0.0	1.0
Netherlands	1.2	0.5	0.0	1.0
Greece	1.3	2.0	0.7	1.0
Austria	1.5	0.3	0.0	1.0
Finland	1.5	0.0	0.0	1.0
Luxembourg	1.5	0.3	0.0	1.0
Sweden	1.5	0.7	0.0	1.0
Portugal	1.6	0.7	0.0	1.0
United States	1.8	0.0	0.0	1.0
Norway	1.9	0.3	0.7	0.0
Hungary	1.9	1.2	0.0	3.0
Brazil	2.0	0.7	1.3	4.0
Czech Republic	2.0	0.7	0.0	1.0
Switzerland	2.0	1.1	0.0	1.0
Korea	2.2	0.0	0.0	3.0
New Zealand	2.3	0.0	0.0	1.0
France	2.3	0.5	0.0	1.0
Slovak Republic	2.3	1.1	1.6	1.0
Japan	2.4	0.3	0.0	1.0
Australia	2.4	0.0	0.0	1.0
Mexico	2.8	1.4	0.0	6.0
Italy	2.8	0.7	0.0	1.0
Canada	2.9	0.5	0.0	1.0
Bulgaria	**3.0**	**0.0**	**0.0**	**2.0**
Turkey	3.1	0.7	0.0	3.0
Poland	3.7	0.3	1.6	4.0

NOTE: The values of indicators refer to 2006 for Bulgaria and Romania, 2004 for Brazil, and to 2003 for all other countries (Conway et al. 2005).

ANNEX II: DETAILED RESULTS OF PMR SURVEY FOR BULGARIA

Table A2. 1
Scope of public enterprise sector

Do the national, state or provincial government hold equity stakes in the largest firm in the sector:		*Weight (a_i)*	*Coding of answers*							
ISIC (Rev. 3.1) code	*Sector*		*Yes*	*No*	Bulgaria	Romania	OECD	EU15	Slovak Rep.	Poland
16	Manufacture of tobacco products	1	6	0	yes	no	na	na	no	yes
232	Manufacture of refined petroleum products	1	6	0	yes	yes	na	na	no	yes
27	Manufacture of basic metals	1	6	0	yes	no	na	na	no	yes
28, 29	Manufacture of fabricated metal products, machinery and equipment	1	6	0	no	no	na	na	no	yes
4010	Electricity: electricity generation/import or electricity transmission or electricity distribution or electricity supply	1	6	0	yes	yes	na	na	yes	yes
4020	Gas: gas production/import or gas transmission or gas distribution or gas supply	1	6	0	yes	yes	na	na	yes	yes
4100	Collection, purification and distribution of water	1	6	0	yes	yes	na	na	-	yes
50, 51	Wholesale trade, incl. motor vehicles	1	6	0	no	no	na	na	no	yes
55	Restaurant and hotels	1	6	0	no	no	na	na	no	yes
601, 6303	Railways: Passenger transport via railways, Freight transport via railways, operation of railroad infrastrucutre	1	6	0	yes	yes	na	na	no	yes
6021	Other urban, suburban and interurban passenger transport	1	6	0	no	yes	na	na	yes	yes
6021	Other scheduled passenger land transport	1	6	0	n.a.	n.a.	na	na	n.a.	n.a.
6023	Freight transport by road	1	6	0	no	no	na	na	no	yes
6303	Operation of road infrastructure	1	6	0	yes	yes	na	na	no	no
61	Water transport	1	6	0	yes	no	na	na	no	yes
6303	Operation of water transport infrastructure	1	6	0	yes	yes	na	na	no	yes
62	Air transport	1	6	0	yes	yes	na	na	yes	yes
6303	Operation of air transport infrastructure	1	6	0	yes	yes	na	na	no	yes
642	Telecommunication fixed line services, mobile services, internet services.	1	6	0	yes	yes	na	na	yes	yes
6519, 659, 671	Financial institutions	1	6	0	no	no	na	na	no	yes
66, 672	Insurance	1	6	0	no	no	na	na	no	yes
74	Other business activity	1	6	0	no	no	na	na	no	yes
851	Human health activities 851	1	6	0	yes	no	na	na	yes	yes
9211, 9212	Motion picture distribution and projection	1	6	0	no	no	na	na	no	yes
		percent of sectors with state ownership			60.87%	47.83%	52.41%	53.63%	27.27%	95.83%
Country score (0-6)		if number of answers>=20 then ($\Sigma_i a_i$ answer$_i$)/$\Sigma_i a_i$			3.65	2.87	3.14	3.22	5.75	1.64

Table A2. 2 Size of public enterprise sector

	Privatization proceeds as (pct of GDP)[1]	Size of public sector (0 to 6 index)[2]
1996		6
1997	3.1	5.6
1998	1.6	5.4
1999	2.3	5.2
2000	1.3	5.0
2001	2.9	4.7
2002	1.3	4.5
2003	1.1	4.4
2004	3.1	4.0
2005	3.4	3.6
2006	0.9[3]	3.5

1/ Source: Privatization Agency of Bulgaria (www.priv.government.bg/)
2/ The 1996 figure is from Gwartney and Lawson (1997), but rescaled from a 0 to 10 scale (with 0 the worst or largest size of the public sector), to follow the 0 to 6 scale of the PMR (where 6 is now the worst ranking). Data for subsequent years were calculated relying on a perpetual inventory method type of approach: $I_t = I_{t-1} + 0.2*(P_{t-1})$, where the first I_{t-1} is the original index (equal to zero for 1996) and P_{t-1} is the privatization proceeds flow for the year. We are grateful to Paul Conway for his help in calculating these data in a manner consistent with the overall PMR.
3/ Estimated .

Table A2. 3 Extent of direct control over business enterprise

	Weight w_i	Weight b_i	Weight a_i	Coding of answers Yes	No	Bulgaria	Romania	OECD	EU15	Poland	Slovakia
General constraints											
There are any legal or constitutional constraints to the sale of the stakes held by government in these firms	30% $*w_I$ (% of business sectors in which the state controls at least a firm)	1		6	0	yes	yes	18/30 yes	n.a.	no	yes
Strategic choices of any publicly-controlled firms have to be reviewed and/or cleared in advance by national, state, or provincial legislatures	20% $*w_I$ (% of business sectors in which the state controls at least a firm)	1		6	0	yes	yes	16/30 yes	n.a.	yes	yes
Golden shares	50%										
National, state or provincial governments have special voting rights (e.g. golden shares) in any firms within the business sector		1/2		6	0	**yes**	**yes**	**11/30 yes**	n.a.	yes	yes
Extent of the special rights											
These special rights can be exercised in merger with or acquisition by another company			1	6	0	**yes**	**yes**	**9/30 yes**	n.a.	yes	yes
These special rights can be exercised in change in controlling coalition			1	6	0	no	**yes**	23/30 no	n.a.	yes	yes
These special rights can be exercised in choice of management			1	6	0	no	**yes**	25/30 no	n.a.	yes	yes
These special rights can be exercised in strategic management decisions			1	6	0	**yes**	**yes**	**6/30 yes**	n.a.	yes	yes
Weight: % of business sector in which the state controls at least a firm (scope of public enterprise sector/6))		1/2	$(\Sigma_i a_i \text{ answer}_i)/\Sigma_i a_i$			61%	48%	53%	56%	96%	27%
Country scores (0-6)		$\Sigma_i w_i{*}b_i{*}\text{answer}_i$				**3.3**	**4.4**	**1.9**	**1.9**	**3.0**	**3.5**

Table A2. 4 Price Controls

	Industry weights (b_j)	Question weights (c_k)	Coding of answers: Yes		Coding of answers: No		Bulgaria	Romania	OECD	EU15	Slovak Republic	Poland
Air travel	1/4					**Score**	**2.40**	**2.40**	**1.23**	**0.54**	**0.75**	**5.40**
Prices of domestic air fares are regulated		1/2	6		0		no	no	na	na	no	yes
Relatif number of 5 or 4 busiest routes subject to price regulation		1/2	(n/5)*6 or (n/4)*6				0.8	0.8	na	na	0.25	0.8
Road freight	1/4					**Score**	**0**	**0**	**0.87**	**1.00**	**0**	**0**
Retail prices of road freight services are regulated in some way by the government		1/3	6		0		no	no	na	na	no	no
Government provides pricing guidelines to road freight companies		1/3	6		0		no	no	na	na	no	no
Professional bodies or representatives of trade and commercial interests are involved in specifying or enforcing pricing guidelines or regulations		1/3	6		0		-	-	na	na	no	no
Retail distribution	1/4		**Scale for Retail**			**Score**	**3**	**2**	**2**	**1.63**	**1**	**1**
Retail prices of certain products are subject to price controls			**Yes or - Yes**	**Yes or - No**	**No**							
Retail prices of certain staples (e.g. milk and bread) are subject to price controls		1/6	6	0	0		yes	yes	na	na	0	0
Retail prices of gasoline are subject to price controls		1/6	6	0	0		-	no	na	na	no	no
Retail prices of tobacco are subject to price controls		1/6	6	0	0		yes	no	na	na	no	no
Retail prices of alcohol are subject to price controls		1/6	6	0	0		no	no	na	na	no	no
Retail prices of pharmaceuticals are subject to price controls		1/6	6	0	0		yes	yes	na	na	no	yes
Retail prices of other product are subject to price controls		1/6	6	0	0		-	yes	na	na	yes	no
Telecommunication						**Score**	**0**	**0**	**0**	**0**	**0**	**0**
Retail prices of digital mobile service in telecommunications are regulated	1/4	1	6		0		no	no	na	na	no	no
Country scores (0-6)		$\Sigma_j b_j \Sigma_k c_k$ answer$_{jk}$				**Overall score**	**1.35**	**1.10**	**1.01**	**0.83**	**1.60**	**0.44**

Table A2. 5. Use of command and control regulation

	General vs industry-specific weights (a_i)	Industry weights (b_j)	Question weights (c_k)	Coding of answers: Yes	Coding of answers: No	Bulgaria	Romania	OECD	EU15	Poland	Slovak Republic
General information	1/2										
Regulators are required to assess alternative policy instruments (regulatory and non-regulatory) before adopting new regulation			1/2	0	6	no	yes	n.a.	n.a.	yes	yes
Guidance has been issued on using alternatives to traditional regulation			1/2	0	6	no	no	n.a.	n.a.	no	yes
Sector specific information	1/2							n.a.	n.a.		
Road freight		1/4						n.a.	n.a.		
Regulations prevent or constrain backhauling (picking up freight on the return leg)			1/8	6	0	no	no	n.a.	n.a.	no	no
Regulations prevent or constrain private carriage (transport only for own account)			1/8	6	0	no	no	n.a.	n.a.	no	no
Regulations prevent or constrain contract carriage (contractual relation between an otherwise independent haulier and one shipper)			1/8	6	0	no	no	n.a.	n.a.	no	no
Regulations prevent or constrain intermodal operations (operating or ownership links between firms in different transportation sectors)			1/8	6	0	no	no	n.a.	n.a.	no	no
Retail distribution		1/4						n.a.	n.a.		
Shop opening hours are regulated			2/3	6	0	no	no	n.a.	n.a.	yes	no
Government regulations on shop opening hours apply at national level(1)			1/3	6	0			n.a.	n.a.		
The regulation of opening hours became more flexible in the last 5 years			*	-0.5	0			n.a.	n.a.		
Air travel		1/4						n.a.	n.a.		
Carriers operating on domestic routes are subject to universal service requirements (e.g. obligation to serve specified customers or areas)			1	6	0	no	no	n.a.	n.a.	yes	no
Railways		1/4						n.a.	n.a.		
Companies operating the infrastructure or providing railway services are subject to universal service requirements (e.g. obligation to serve specified customers or areas)			1	6	0	yes	yes	n.a.	n.a.	yes	no
Country scores (0-6)	$\Sigma_i a_i \; \Sigma_j b_j \; \Sigma_k c_k$ answer$_{ijk}$					3.8	2.3	2.2	2.6	3.5	0.0

Note: (1) Yes= State, National+State, National; No = Local, National+local, States+local, No

Table A2. 6: Licenses and permits system

	Question weights (c_k)	Coding of answers		Bulgaria	Romania	OECD	EU15	Poland	Slovak Rep.
		Yes	***No***						
The 'silence is consent' rule (i.e. that licenses are issued automatically if the competent licensing office has not acted by the end of the statutory response period) is used at all	1/3	0	6	no	yes	n.a.	n.a.	no	yes
There are single contact points (“one-stop shops”) for getting information on notifications and licenses	1/3	0	6	yes	yes	n.a.	n.a.	yes	yes
There are single contact points (“one-stop shops”) for issuing or accepting on notifications and licenses	1/3	0	6	yes	yes	n.a.	n.a.	yes	yes
Country scores (0-6)	$\Sigma_k c_k$ answer$_{jk}$			2	0	2.2	2	2	0

Table A2. 7 Communication and simplification of rules and procedures

	Weights by theme (b_j)	Question weights (c_k)	Coding of answers				Bulgaria	Romania	OECD	EU15	Poland	Slovakia
			Yes			*No*						
Communication	1/2											
There are systematic procedures for making regulations known and accessible to affected parties		2/12	0		6	-	yes	yes	n.a.	n.a.	yes	yes
There is a general policy requiring "plain language" drafting of regulation		1/12	0		6	-	yes	yes	n.a.	n.a.	yes	yes
Affected parties have the right to appeal against adverse enforcement decisions in individual cases		4/12	Yes or in all cases	In some cases	No	-	in all cases	in all cases	n.a.	n.a.	in all cases	in some cases
			0	3	6	-						
There are inquiry points where affected or interested foreign parties can get information on the operation and enforcement of regulations		3/12	0		6	-	yes	yes	n.a.	n.a.	yes	yes
Government policy imposes specific requirements in relation to transparency/freedom of information government wide		2/12	Government wide	For some sectors	No	-	government wide	government wide	n.a.	n.a.	government wide	government wide
			0	3	6	-						
Simplification	$1/2*(W_i\text{-Min } W)/(\text{Max } W_{98}\text{- Min } W)$											
National government (all ministries and agencies) keeps a complete count of the number of permits and licenses required		1/3	0			6	yes	no	n.a.	n.a.	yes	no
There is an explicit program to reduce the administrative burdens imposed by government on enterprises and/or citizens		1/3	0			6	no	yes	n.a.	n.a.	yes	yes
There is a program underway to review and reduce the number of licenses and permits required by the national government		1/3	0			6	yes	yes	n.a.	n.a.	no	no
Country scores (0-6)			$\Sigma_j b_j \, \Sigma_k c_k$ answer$_{jk}$				**0.3**	**0.1**	**0.5**	**0.5**	**0.8**	**1.4**

Weight for the simplification element W_i	
	Weights (d_k)
Administrative burdens for corporation	1/4
Administrative burdens for sole proprietor firms	1/4
Sector specific administrative burdens	1/4
Communication	1/4
Country weight (0-1)	$\Sigma_k d_k$ score$_k$

Table A2. 8 Administrative burden on corporations

	Weight on compliance type (c_k)	Scale 0-6												
		0	**1**	**2**	**3**	**4**	**5**	**6**	Bulgaria	Romania	OECD	EU15	Poland	Slovak Republic
Number of mandatory procedures required to register a public limited company (pre-registration+registration)	1/4	<=3	<=5	<=8	<=12	<=16	<=20	>20	11	5	14.9	14.5	28	15
Number of public and private bodies to contact to register a public limited company (pre-registration+registration)	1/4	0	1	2	3	4	5	6			5.0	5.1	6	8
Number of working days required to complete all mandatory procedures for registering a public limited company (pre-registration+registration)	1/4	<=16.4	<=32.8	<=49.2	<=65.6	<=82	<=98.4	>98.4	32	11	23.8	22.3	90	15
Total cost (euros) of registering a public limited company (pre-registration+registration)	1/4	<=500	<=1000	<=1500	<=2500	<=5000	<=7500	>7500	180.33	107.54	1108.14	899.07	n.a	721.97
Country scores (0-6)		$\Sigma_k c_k$ answer$_k$							1.37	0.80	1.90	1.83	4.33	2.00

NOTE: Values for Bulgaria and Romania were obtained based on Doing Business 2005 data. Since Doing Business information on number of procedures, number of days and cost connected with starting a company are not directly comparable to the same information in the OECD International Regulation Database, a normalization process was necessary to homogenize the scores obtained. The normalization process proceeded as follows.
1) A standard score (also called z-score or normal score) was obtained as Z = (raw score - mean$^{OECD-DB}$)/standard deviation$^{OECD-DB}$ based on the Doing Business sample, where the values for OECD countries refer to Doing Business 2003. The z-score reveals how many units of the OECD standard deviation Bulgaria and Romania are above or below the OECD mean.
2) A transformed score, comparable to OECD scores obtained from the OECD International Regulation Database, is calculated for Bulgaria and Romania as T = Z*(standard deviation$^{OECD-PMR}$) + mean$^{OECD-PMR}$

Table A2. 9. Sector specific administrative burdens

Sector specific administrative burdens

	Overall weight	*Industry weights (b_j)*	*Question weights (c_k)*	**Coding of answers**						Bulgaria	Romania	OECD	EU15	Slovak Republic	Poland
Road freight		1/2													
In order to establish a national road freight business, operators need to obtain a license (other than a driving license) or permit from the government or a regulatory agency				Yes	No or missing	No or missing	No or missing	No or missing	No or missing	yes	yes	na	na	yes	yes
In order to establish a national road freight business, operators need to notify any level of government or a regulatory agency and wait for approval before they can start operation			1/3	No or missing	Yes	No or missing	No or missing	No or missing	No or missing	no	no	na	na	yes	No
Registration in transport register is required in order to establish a new business in the road freight sector				No or missing	No or missing	Yes	No or missing	No or missing	No or missing	yes	yes	na	na	yes	no
In order to operate a national road freight business, operators need to notify any level of government or a regulatory agency				No or missing	No or missing	No or missing	Yes	No	-	no	no	na	na	yes	No
Scale for the first element of road freight				4	3 Yes	2	1	0 No	-						
There are criteria other than technical and financial fitness and compliance with public safety requirements considered in decisions on entry of new operators			1/3		1			0		yes	no	na	na	yes	yes
These entry regulations apply also if a firm wants to transport only for its own account	Normalised value of the indicator of general administrative burdens on startups $w=w_i$ / Max w_{98}		1/3		1			0		no	yes	na	na	no	no
Retail distribution		1/2		"always required"		"depends on type of		"no requirement"				na	na		
Registration in commercial register is needed to start up a commercial activity for seeling food products			1/8	6		3		0		always required	always required	na	na	depends on size of outlet	always required
Registration in commercial register is needed to start up a commercial activity for selling clothing products			1/8	6		3		0		always required	always required	na	na	depends on size of outlet	Always required
Notification to authorities is needed to start up a commercial activity for selling food products			1/8	6		3		0		always required	always required	na	na	depends on size of outlet	always required
Notification to authorities is needed to start up a commercial activity for selling clothing products			1/8	6		3		0		always required	always required	na	na	depends on size of outlet	Always required
Licenses or permits are needed to engage in commercial acitivity (not related to outlet siting) for selling food products			1/8	6		3		0		always required	depends on size of outlet or type of goods sold	na	na	depends on size of outlet	always required
Licenses or permits are needed to engage in commercial acitivity (not related to outlet siting) for selling clothing products			1/8	6		3		0		-	depends on size of outlet or type of goods sold	na	na	depends on size of outlet	-
Licenses or permits are needed for outlet siting (in addition to compliance with general urban planning provisions) for selling food products			1/8	6		3		0		always required	always required	na	na	always required	always required
Licenses or permits are needed for outlet siting (in addition to compliance with general urban planning provisions) for selling clothing products			1/8	6		3		0		always required	always required	na	na	always required	depends on size of outlet
Country scores (0-6)				$w*\Sigma_j b_j \Sigma_k c_k$ answer$_{jk}$						1.88	0.75	1.67	1.56	4.11	1.91

Table A2. 10 Legal barriers to entry

ISIC (rev. 3.1) code	National, state or provincial laws or other regulations restrict the number of competitors allowed to operate a business in at least some markets in: Sector	Weight (a_i)	Coding of answers: Yes	Coding of answers: No	Bulgaria	Romania	OECD	EU15	Poland	Slovak Rep.
16	Manufacture of tobacco products	1	6	0	-	no	n.a.	n.a.	no	no
232	Manufacture of refined petroleum products	1	6	0	no	no	n.a.	n.a.	no	no
27	Manufacture of basic metals	1	6	0	no	no	n.a.	n.a.	no	no
28, 29	Manufacture of fabricated metal products, machinery and equipment	1	6	0	no	no	n.a.	n.a.	no	no
4010	Electricity: electricity generation/import or electricity transmission or electricity supply	1	6	0	yes	yes	n.a.	n.a.	yes	yes
4020	Gas: gas production/import or gas transmission or gas supply	1	6	0	yes	yes	n.a.	n.a.	yes	yes
4100	Collection, purification and distribution of water	1	6	0	yes	no	n.a.	n.a.	no	-
50, 51	Wholesale trade, incl. motor vehicles	1	6	0	no	no	n.a.	n.a.	no	no
55	Restaurant and hotels	1	6	0	no	no	n.a.	n.a.	no	no
601, 6303	Railways: Passenger transport via railways, Freight transport via railways, Operation of railroad infrastrucutre	1	6	0	no	yes	n.a.	n.a.	no	no
6021	Other urban, suburban and interurban passenger transport	1	6	0	-	no	n.a.	n.a.	no	no
6021	Other scheduled passenger land transport	1	6	0	no	-	n.a.	n.a.	-	-
6023	Freight transport by road	1	6	0	no	no	n.a.	n.a.	no	no
6303	Operation of road infrastructure	1	6	0	no	yes	n.a.	n.a.	no	no
61	Water transport	1	6	0	no	no	n.a.	n.a.	no	no
6303	Operation of water transport infrastructure	1	6	0	no	no	n.a.	n.a.	no	no
62	Air transport	1	6	0	no	no	n.a.	n.a.	no	no
6303	Operation of air transport infrastructure	1	6	0	yes	yes	n.a.	n.a.	no	no
642	Telecommunication: fixed-line network, fixed-line services, mobile services, internet services	1	6	0	no	yes	n.a.	n.a.	no	no
6519, 659, 671	Financial institutions	1	6	0	no	no	n.a.	n.a.	no	no
66, 672	Insurance	1	6	0	no	no	n.a.	n.a.	no	no
74	Other business activity	1	6	0	no	yes	n.a.	n.a.	no	no
851	Human health activities	1	6	0	-	-	n.a.	n.a.	-	-
9211, 9212	Motion picture distribution and projection	1	6	0	no	no	n.a.	n.a.	no	no
		proportion of sectors with legal			19%	33%	5%	23%	10%	10%
	Country scores (0-6)	if number of answers>=20 then ($\Sigma_i a_i$ answer$_i$)/$\Sigma_i a_i$			1.1	2.0	1.4	1.4	0.6	0.6

- Electricity: Yes if national, state or provincial government controls at least one firm in one of the four following sectors: electricity generation/import or electricity transmission or electricity supply
- Gas: Yes if national, state or provincial government controls at least one firm in one of the four following sectors: gas production/import or gas transmission or gas supply
- Railways: Yes if national, state or provincial government controls at least one firm in one of the three following sectors: Passenger transport via railways, Freight transport via railways, Operation of railroad infrastructure
- Telecommunication: Yes if national, state or provincial government controls at least one firm in one of the four following sectors: fixed-line network, fixed-line services, mobile services, internet services.

Table A2. 11 Antitrust exemptions for public enterprises or state-mandated actions

	Overall weight	Question weights (c_k)	Coding of answers: Yes	Coding of answers: No	Bulgaria	Romania	OECD	EU15	Poland	Slovakia
Is there rule or principle providing for exclusion or exemption from liability under the general competition law for conduct that is required or authorized by other government authority (in addition to exclusions that might apply to complete sectors)?	Weight $=w_i$ = (Scope + Size of public sector enterprises)/2)	1/4	6	0	no	no	n.a.	n.a.	no	no
Publicly-controlled firms or undertakings are subject to an exclusion or exemption from competition law such as horizontal cartels		1/4	6	0	Country is not concerned by the question	Country is not concerned by the question	n.a.	n.a.	Country is not concerned by the question	-
Publicly-controlled firms or undertakings are subject to an exclusion or exemption from competition law such as vertical restraints or to abuse of dominance		1/4	6	0	Country is not concerned by the question	Country is not concerned by the question	n.a.	n.a.	Country is not concerned by the question	-
Publicly-controlled firms or undertakings are subject to an exclusion or exemption from competition law such as mergers		1/4	6	0	Country is not concerned by the question	Country is not concerned by the question	n.a.	n.a.	Country is not concerned by the question	-
Country scores (0-6)		$w_i*\Sigma_k c_k$ answer$_k$ / w_i^{max}			0	0	**0.4**	**0.3**	**0.0**	**0.0**

Table A2. 12 Foreign ownership barriers

	Weights by theme (b_j)	Question weights (c_k)	Coding of answers					Bulgaria	Romania	OECD	EU15	Poland	Slovak Rep.
			Yes				*No*						
General barriers	1/2												
There are statutory or other legal limits to the number or proportion of shares that can be acquired by foreign investors in publicly-controlled firms		2/3*w_i (% of business sectors in which the state controls at least a firm)	6				0	yes	no	n.a.	n.a.	yes	yes
Special government rights can be exercised in the case of acquisition of equity by foreign investors		1/3	6				0	yes	Country is not concerned by the question	n.a.	n.a.	yes	yes
Sector-specific barriers	1/2												
Foreign ownership restrictions in telecomunications		1/2	***Yes*** 6		**Partly** 3		**No** 0	none	none	n.a.	n.a.	none	none
			<50%	<40%	<35%	<30%	<25%						
Ceiling on foreign investment in an airline company		1/2	0	1	3	4	6	0.49	0.49	n.a.	n.a.	0.49	49% after 01/05/2004 also EU community concecpt of the ownership and control could be applicable
Country scores (0-6)		$\Sigma_j b_j \Sigma_k c_k$ answer$_{jk}$						3.0	0.8	1.8	1.3	3.7	2.3
Memo item		Memo item: % of business sectors in which the state controls at least a firm						61%	48%	n.a.	n.a.	96%	27%

Table A2. 13. Discriminatory procedures

	Weights by theme (b_j)	Question weights (c_k)	Coding of answers																Bulgaria	Romania	OECD	EU15	Poland	Slovak Rep
							Yes							No										
General discrimination	2/3																							
Country has any specific provisions which require or encourage explicit recognition of the national treatment principle when applying regulations, so as to guarantee non-discrimination between foreign and domestic firms, goods or services		3/6					0							6					yes	0	n.a.	n.a.	yes	yes
When appeal procedures relating to regulatory decisions are available in domestic regulatory systems, they are open to affected or interested foreign parties as well		2/6					0							6					yes	0	n.a.	n.a.	yes	yes
There are specific provisions which require that regulations, prior to entry into force, be published or otherwise communicated to the public in a manner accessible at the international level		1/6					0							6					yes	0	n.a.	n.a.	no	yes
Competition discrimination	1/3									**0-6 Scale for competition discrimination**											n.a.	n.a.		
When business practices are perceived to restrict competition foreign firms can have redress **through competition agencies**			Yes	Yes	Yes	Yes	Yes	No/-	Yes	Yes	Yes	No/-	Yes	No/-	No/-	No/-	No/-	No/-	yes	0	n.a.	n.a.	yes	yes
When business practices are perceived to restrict competition foreign firms can have redress **through trade policy bodies**			Yes	Yes	No/-	No/-	Yes	Yes	No/-	Yes	No/-	Yes	No/-	No/-	Yes	No/-	Yes	No/-	yes	0	n.a.	n.a.	yes	no
When business practices are perceived to restrict competition and hence prevent effective access of foreign firms (foreign owned or controlled) to such markets, foreign firms can have redress **through regulatory authorities involved**			Yes	No/-	Yes	No/-	Yes	Yes	Yes	No/-	Yes	No/-	No/-	No/-	No/-	Yes	Yes	No/-	yes	0	n.a.	n.a.	yes	yes
When business practices are perceived to restrict competition foreign firms can have redress **through private rights of action**			Yes	Yes	Yes	Yes	No/-	Yes	No/-	No/-	Yes	Yes	No/-	Yes	No/-	No/-	No/-	No/-	yes	0	n.a.	n.a.	yes	yes
			0	**0.75**	**0.75**	**1.5**	**2.625**	**2.625**	**3.375**	**3.375**	**3.375**	**3.375**	**4.125**	**4.125**	**5.25**	**5.25**	**5.25**	**6**						
Country scores (0-6)									$\Sigma_j b_j \Sigma_k c_k$ answer$_{jk}$										0.00	0.00	0.49	0.49	0.25	1.13

Table A2. 14. Tariffs trade barriers

Tariffs trade barriers

	Coding of answers						
Average production-weighted tariff	<=3%	<=6%	<=9%	<=12%	<=15%	<=18%	>18%
Country scores (0-6)	0	1	2	3	4	5	6

Bulgaria	Romania	OECD	EU15	Poland	Slovak Republic
8.6	15.8	5.5	4.4	13.4	5.1
2.0	5.0	1.4	1.0	4.0	1.0

Table A2. 15. Regulatory barriers to trade and investment

	Question weights (c_k)	**Coding of answers**		Bulgaria	Romania	OECD	EU15	Poland	Slovak Republic
		Yes	***No***						
The country has engaged in Mutual Recognition Agreements (MRAs) in at least a sector with any other country	2/5	0	6	yes	yes	na	na	yes	yes
There are specific provisions which require or encourage regulators to consider recognizing the equivalence of regulatory measures or the result of conformity assessment performed in other countries, wherever possible and appropriate	4/15	0	6	yes	yes	na	na	no	no
There are specific provisions which require or encourage regulators to use internationally harmonized standards and certification procedures wherever possible and appropriate	2/9	0	6	yes	yes	na	na	yes	yes
There are any specific provisions which require or encourage regulatory administrative procedures to avoid unnecessary trade restrictiveness	1/9	0	6	yes	yes	na	na	yes	yes
Country scores (0-6)		$\Sigma_k c_k$ answer$_{jk}$		0.00	0.00	0.22	0.18	0.00	1.60